Electronic Supplementary Information (ESI)

Extrapolation performance improvement by quantum chemical calculations for machine-learning-based predictions of flow-synthesized binary copolymers

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Flow synthesis reactor:

| Part name | Product number | Manufacturer |
|---------------------------------------|-------------------|------------------------------|
| Carevy and bettle 4 next and set | 017270.24 | |
| Screw cap bottle 4 port cap set | 01/2/0-3A | SIBATA SCIENTIFIC TECHNOLOGY |
| Medium bottle | FB-800-500 | Fisher Scientific |
| Stainless steel cooling bath | HPS-100 | AS ONE Corporation |
| Magnetic stirrer | HS-30DN | AS ONE Corporation |
| PFA Tubingφ 3.17 (1/8) × φ1.59 (1/16) | NSP66-3.17X1.59-1 | GUNZE LIMITED |
| Plunger pump | FC-F-PP-410S | Device for FlowChemistry |
| Feral | YMC-P-0012 | YMC |
| Connector | YMC-P-0002 | YMC |
| Mixer housing | YMC-P-0030-02 | YMC |
| Micro mixer | KC-M-Y-GL | YMC |
| Inline temperature sensor | FC-TCK-SW1.6 | Device for FlowChemistry |
| PFA Tubing 2×3φ | TOMBO No.9003-PFA | NICHIAS Corporation |
| Oil bath | NWB-250 | NISSIN |
| Powerful magnetic stirrer | F-205D | Tokyo Garasu Kikai |

Table S1. List of flow reactor components.



Figure S1. Photographs of flow reactor setup.

Reagents

Methyl methacrylate (MMA), glycidyl methacrylate (GMA), styrene (St), tetrahydrofurfuryl methacrylate (THFMA), and 2,2'-azobis(2,4-dimethylvaleronitrile) were purchased from FUJIFILM Wako (Osaka, Japan). Cyclohexyl methacrylate (CHMA) and *p*-acetoxystyrene (PACS) were supplied by Tokyo Chemical Industry (Tokyo, Japan) and Tosoh Finechem (Yamaguchi, Japan), respectively. 1-Methoxy-2-propanol was received from Sigma-Aldrich (Burlington, Massachusetts, United States).

Polymer synthesis and characterization

Synthesis conditions:

The selection was exhaustive for each condition. We selected points around the central condition where each monomer does not have extremely high/low conversion rates so that the transition of monomer conversion can be checked, and so that the number of points does not increase excessively. In particular, when the conversion rate for each monomer is extremely high, clogging of the tubes occurs.

- Monomer A/B composition ratio: A/B = 70/30, 50/50, and 30/70.
- SM: 2, 4, and 10.
- Amount of initiator: 1 and 5 mol%.
- Reaction temperature: 60 and 80°C.
- Reaction time: 5, 10, 20, and 30 min.

HPLC conditions:

High-performance liquid chromatography (HPLC, Shimadzu, (DGU-20A3, LC-20AB, SIL-20A, SPD-M20A, CTO-20A)), using a separation column (GL Science, ODS-3 5 μ m 4.6 × 250 mm), was employed for the analyses of the copolymerization composition.

- Flow rate: 1.0 mL/min
- Elution solvent volume ratio: Acetonitrile/Ultrapure water = 55/45
- Sample concentration: 0.2 mass%
- Sample injection volume: 1 µL
- Column temperature: 40°C
- Detector: UV-visible spectrophotometer at 210 nm

Each monomer concentration is calculated from a calibration curve.

| | | M1 | M2 | Initiator | | Flow | Temperature | Reaction | M1 | M2 | M1 |
|------------|-------|-------------------|-------------------|-------------------|----|-----------|-------------|----------|------------|------------|--------|
| Sample No. | M1 | composition ratio | composition ratio | composition ratio | SM | velocity | [°C] | time | conversion | conversion | ICR |
| E E2 4 | CURA | [mol%] | [mol%] | [mol%] | | [mL/min.] | 60 | [min] | [%] | [%] | [mol%] |
| F-52-1 | CHMA | 50 | 50 | 5 | 4 | 6.28 | 60 | 5 | 18.52 | 18 | 50.71 |
| F-52-2 | CHMA | 50 | 50 | 5 | 4 | 3.14 | 60 | 10 | 27.35 | 25.29 | 51.96 |
| F-52-3 | CHMA | 50 | 50 | 5 | 4 | 1.57 | 60 | 20 | 42.3 | 36.79 | 53.48 |
| F-52-4 | CHMA | 50 | 50 | 5 | 4 | 1.05 | 60 | 29.9 | 52.62 | 46.56 | 53.06 |
| F-53-1 | CHMA | 30 | 70 | 5 | 4 | 6.28 | 60 | 5 | 16.54 | 15.07 | 31.98 |
| F-53-2 | CHMA | 30 | 70 | 5 | 4 | 3.14 | 60 | 10 | 25.23 | 22.74 | 32.23 |
| F-53-3 | CHMA | 30 | 70 | 5 | 4 | 1.57 | 60 | 20 | 39.18 | 34.93 | 32.46 |
| F-53-4 | CHMA | 30 | 70 | 5 | 4 | 1.05 | 60 | 29.9 | 50.65 | 44.3 | 32.89 |
| F-54-1 | CHMA | 70 | 30 | 5 | 4 | 6.28 | 60 | 5 | 19.22 | 15.91 | 73.81 |
| F-54-2 | CHMA | 70 | 30 | 5 | 4 | 3.14 | 60 | 10 | 27.58 | 22.78 | 73.86 |
| F-54-3 | CHMA | 70 | 30 | 5 | 4 | 1.57 | 60 | 20 | 42.21 | 34.81 | 73.89 |
| F-54-4 | CHMA | 70 | 30 | 5 | 4 | 1.05 | 60 | 29.9 | 53.17 | 44.39 | 73.65 |
| F-55-1 | CHMA | 50 | 50 | 5 | 4 | 6.28 | 80 | 5 | 36.94 | 32.52 | 53.19 |
| F-55-2 | CHMA | 50 | 50 | 5 | 4 | 3.14 | 80 | 10 | 54.41 | 47.24 | 53.53 |
| F-55-3 | CHMA | 50 | 50 | 5 | 4 | 1.57 | 80 | 20 | 66.91 | 57.85 | 53.63 |
| F-55-4 | CHMA | 50 | 50 | 5 | 4 | 1.05 | 80 | 29.9 | 73.36 | 64.46 | 53.23 |
| F-56-1 | CHMA | 50 | 50 | 1 | 4 | 6.28 | 60 | 5 | 11.9 | 11.46 | 50.94 |
| F-56-2 | CHMA | 50 | 50 | 1 | 4 | 3.14 | 60 | 10 | 16.47 | 15.07 | 52.23 |
| F-56-3 | CHMA | 50 | 50 | 1 | 4 | 1.57 | 60 | 20 | 25.86 | 22.56 | 53.42 |
| F-56-4 | CHMA | 50 | 50 | 1 | 4 | 1.05 | 60 | 29.9 | 34.53 | 29.8 | 53.68 |
| F-57-1 | CHMA | 50 | 50 | 5 | 10 | 6.28 | 60 | 5 | 12.2 | 10.47 | 53.81 |
| F-57-2 | CHMA | 50 | 50 | 5 | 10 | 3.14 | 60 | 10 | 14.65 | 10.97 | 57.17 |
| F-57-3 | CHMA | 50 | 50 | 5 | 10 | 1.57 | 60 | 20 | 27.66 | 22.01 | 55.69 |
| F-57-4 | CHMA | 50 | 50 | 5 | 10 | 1.05 | 60 | 29.9 | 35.84 | 29.08 | 55.21 |
| F-58-1 | CHMA | 50 | 50 | 5 | 2 | 6.28 | 60 | 5 | 22.65 | 20.07 | 53.02 |
| F-58-2 | CHMA | 50 | 50 | 5 | 2 | 3.14 | 60 | 10 | 33.58 | 29.57 | 53.18 |
| F-58-3 | CHMA | 50 | 50 | 5 | 2 | 1.57 | 60 | 20 | 53.31 | 45.36 | 54.03 |
| F-58-4 | CHMA | 50 | 50 | 5 | 2 | 1.05 | 60 | 29.9 | 63.28 | 56.24 | 52.94 |
| F-1r1 1 | GMA | 50 | 50 | 5 | 4 | 6.28 | 60 | 5 | 25.46 | 17.71 | 58.97 |
| F-1r1 2 | GMA | 50 | 50 | 5 | 4 | 3.14 | 60 | 10 | 32.65 | 24.76 | 56.86 |
| F-1r1 3 | GMA | 50 | 50 | 5 | 4 | 1.57 | 60 | 20 | 45.11 | 35.68 | 55.83 |
| F-1r1 4 | GMA | 50 | 50 | 5 | 4 | 1.05 | 60 | 29.9 | 55 29 | 45 77 | 54.7 |
| F-1r2 1 | GMA | 50 | 50 | 5 | 4 | 6.28 | 60 | 5 | 24.86 | 16.94 | 59.46 |
| F-1r2 2 | GMA | 50 | 50 | 5 | 4 | 3 14 | 60 | 10 | 32.49 | 24.1 | 57.41 |
| F-1r2 3 | GMA | 50 | 50 | 5 | 4 | 1 57 | 60 | 20 | 44.04 | 34.76 | 55.88 |
| F-1r2_4 | GMA | 50 | 50 | 5 | 4 | 1.05 | 60 | 29.9 | 56 29 | 46.97 | 54 51 |
| E-1r3 1 | GMA | 50 | 50 | 5 | 4 | 6.28 | 60 | 5 | 25.31 | 17.96 | 58.49 |
| F-1r3_2 | GMA | 50 | 50 | 5 | 4 | 3 14 | 60 | 10 | 32.48 | 24 71 | 56.78 |
| E 1+2 2 | GMA | 50 | 50 | 5 | 4 | 1 57 | 60 | 20 | JZ.40 | 24.71 | 50.70 |
| E-1+2 A | GMA | 50 | 50 | 5 | 7 | 1.57 | 60 | 20 0 | 52.75 | 44.93 | 53.2 |
| F-1r3_4 | GMA | 50 | 50 | 5 | 7 | 6.29 | 60 | 29.9 | 24.11 | 16 70 | 54.52 |
| F-1(4_1 | GIVIA | 50 | 50 | 5 | 4 | 0.20 | 60 | 5 | 24.11 | 10.76 | 58.95 |
| F-1r4_2 | GMA | 50 | 50 | 5 | 4 | 3.14 | 60 | 10 | 31.72 | 23.64 | 57.28 |
| F-1r4_3 | GMA | 50 | 50 | 5 | 4 | 1.57 | 60 | 20 | 43.88 | 30.89 | 58.68 |
| P-1r4_4 | GMA | 50 | 50 | 5 | 4 | 1.05 | 60 | 29.9 | 53.59 | 44.6 | 54.57 |
| F-1r5_1 | GMA | 50 | 50 | 5 | 4 | 6.28 | 60 | 5 | 24.38 | 16.06 | 60.28 |
| F-1r5_2 | GMA | 50 | 50 | 5 | 4 | 3.14 | 60 | 10 | 32.38 | 23.17 | 58.28 |
| F-1r5_3 | GMA | 50 | 50 | 5 | 4 | 1.57 | 60 | 20 | 44.67 | 35.01 | 56.05 |
| F-1r5_4 | GMA | 50 | 50 | 5 | 4 | 1.05 | 60 | 29.9 | 54.97 | 44.72 | 55.14 |
| F-2_1 | GMA | 50 | 50 | 5 | 4 | 6.28 | 80 | 5 | 40.41 | 31.6 | 56.11 |
| F-2_2 | GMA | 50 | 50 | 5 | 4 | 3.14 | 80 | 10 | 54.63 | 45.22 | 54.7 |
| F-2_3 | GMA | 50 | 50 | 5 | 4 | 1.57 | 80 | 20 | 71.87 | 63.33 | 53.15 |
| F-2_4 | GMA | 50 | 50 | 5 | 4 | 1.05 | 80 | 29.9 | 77.15 | 69.18 | 52.71 |
| F-4_1 | GMA | 50 | 50 | 5 | 10 | 6.28 | 60 | 5 | 17.81 | 10.16 | 63.67 |
| F-4_2 | GMA | 50 | 50 | 5 | 10 | 3.14 | 60 | 10 | 22.73 | 14.72 | 60.69 |
| F-4_3 | GMA | 50 | 50 | 5 | 10 | 1.57 | 60 | 20 | 30.44 | 21.48 | 58.62 |
| F-4_4 | GMA | 50 | 50 | 5 | 10 | 1.05 | 60 | 29.9 | 38.44 | 29.12 | 56.89 |
| F-5_1 | GMA | 50 | 50 | 1 | 4 | 6.28 | 60 | 5 | 18 | 10.16 | 63.91 |
| F-5_2 | GMA | 50 | 50 | 1 | 4 | 3.14 | 60 | 10 | 21.52 | 12.86 | 62.59 |
| F-5_3 | GMA | 50 | 50 | 1 | 4 | 1.57 | 60 | 20 | 27.88 | 18.18 | 60.53 |
| F-5_4 | GMA | 50 | 50 | 1 | 4 | 1.05 | 60 | 29.9 | 34.54 | 24.25 | 58.75 |
| F-6_1 | GMA | 50 | 50 | 5 | 10 | 6.28 | 80 | 5 | 28.29 | 19.66 | 59 |
| F-6_2 | GMA | 50 | 50 | 5 | 10 | 3.14 | 80 | 10 | 39.82 | 29.88 | 57.12 |

 Table S2-1. List of synthesized copolymers.

| Semple No. NI composition rules composition rules composition rules (minor) rest res res </th <th></th> <th></th> <th>M1</th> <th>M2</th> <th>Initiator</th> <th></th> <th>Flow</th> <th>Temperature</th> <th>Reaction</th> <th>M1</th> <th>M2</th> <th>M1</th> | | | M1 | M2 | Initiator | | Flow | Temperature | Reaction | M1 | M2 | M1 |
|---|------------|------|-------------------|-------------------|-------------------|----|-----------|-------------|----------|------------|------------|--------|
| result (modb) (modb)< | Sample No. | M1 | composition ratio | composition ratio | composition ratio | SM | velocity | l°Cl | time | conversion | conversion | ICR |
| rb-a GMA SO SO S 10 157 80 AU 52.42 84.93 54.24 r-7_1 GMA SO SO 1 4 6.28 80 5 30.56 21.47 85.74 r-7_2 GMA SO SO 1 4 6.28 80 5 30.56 21.47 85.44 55.42 r-7_2 GMA SO SO 1 4 1.57 80 20 54.38.44 54.15 r-8_2 GMA 70 30 5 4 1.57 60 20 43.43 31.79 76.16 r-8_4 GMA 70 30 5 4 1.57 60 20 42.33 78.33 74.16 r-8_4 GMA 30 70 5 4 1.57 60 20 42.33 33.83 75.71 53.33 2.96 77.17 53.33 2.96 77.71 53 | 5.6.2 | C144 | [mol%] | [mol%] | [mol%] | 10 | [mL/min.] | , | [min] | [%] | [%] | [mol%] |
| h-b_a CMA SO SO <th< td=""><td>F-6_3</td><td>GMA</td><td>50</td><td>50</td><td>5</td><td>10</td><td>1.57</td><td>80</td><td>20</td><td>52.96</td><td>42.93</td><td>55.22</td></th<> | F-6_3 | GMA | 50 | 50 | 5 | 10 | 1.57 | 80 | 20 | 52.96 | 42.93 | 55.22 |
| F-7_2 GMA 50 50 1 4 6.28 80 5 30.56 12/4 80.7 F-7_3 GMA 50 50 1 4 1.57 80 20 54.65 33.84 55.5 F-7_3 GMA 50 50 1 4 1.57 80 20 54.46 53.84 54.41 F-8_3 GMA 70 30 5 4 1.57 60 20 43.45 74.217 76.16 F-8_4 GMA 70 30 5 4 1.57 60 20 43.43 74 75.16 F-9_3 GMA 30 70 5 4 1.57 60 20 42.33 33.86 F-7.1 GMA 30 70 1 4 1.57 60 20 51.43 33.73 33.83 F-17.4 GMA 30 70 1 4 1.57 80 20 57.28 53.83 33.43 33.14 33.14 33.14 34.14 | F-6_4 | GMA | 50 | 50 | 5 | 10 | 1.05 | 80 | 29.9 | 59.82 | 49.92 | 54.5 |
| i-1,2 CMA SO SO 1 4 3.14 80 10 39.74 39.45 5.35 F-7,3 GMA SO SO 1 4 1.05 80 20 63.75 53.44 55.45 F-8,1 GMA TO 30 5 4 3.14 60 10 30.74 77.45 F-8,3 GMA TO 30 5 4 1.05 60 29.9 54.7 78.93 78.83 F-9,1 GMA 30 TO 5 4 1.05 60 29.9 51.43 38.84 F-9,3 GMA 30 TO 5 4 1.05 60 29.9 51.43 38.35 F-17.1 GMA 30 TO 1 4 1.05 80 29.9 67.08 56 32.55 F-17.4 GMA 30 TO 1 4 1.05 80 29.9 < | F-7_1 | GMA | 50 | 50 | 1 | 4 | 6.28 | 80 | 5 | 30.56 | 21.47 | 58.74 |
| i-7,3 GMA 50 50 1 4 1.57 80 2.0 54.44 54.41 F*,4 GMA 70 30 5 4 6.28 60 10 31.44 54.21 F*8_1 GMA 70 30 5 4 6.12 60 10 30.74 20.6 F*8_4 GMA 70 30 5 4 1.57 60 20 43.45 44.3 F*9_1 GMA 30 70 5 4 6.28 60 5 2.278 1.44 4.31.4 F*9_3 GMA 30 70 5 4 1.57 60 20 42.93 34.45 34.3 F+17_4 GMA 30 70 1 4 1.57 60 20 57.48 35.32 34.46 F17.4 GMA 30 70 1 4 1.57 80 20 57.28 32.05 </td <td>F-7_2</td> <td>GMA</td> <td>50</td> <td>50</td> <td>1</td> <td>4</td> <td>3.14</td> <td>80</td> <td>10</td> <td>39.74</td> <td>29.32</td> <td>57.55</td> | F-7_2 | GMA | 50 | 50 | 1 | 4 | 3.14 | 80 | 10 | 39.74 | 29.32 | 57.55 |
| i-r,a GMA 50 50 1 4 1.05 80 22.99 63.75 32.84 34.21 Fe,3 GMA 70 30 5 4 3.14 60 10 30.74 79.42 Fe,3 GMA 70 30 5 4 1.05 60 29.9 54.7 42.93 74.83 Fe,4 GMA 30 70 5 4 3.14 60 10 29.06 51.43 36.66 Fe,3 GMA 30 70 5 4 1.05 60 29.9 51.43 38.66 Fe,3 GMA 30 70 1 4 6.28 60 5 16.91 10.21 35.15 34.28 34.44 34.28 34.44 34.28 34.44 32.29 67.08 32.96 32.55 F1.81 GMA 30 70 1 4 1.57 60 20 7.71 50.32 < | F-7_3 | GMA | 50 | 50 | 1 | 4 | 1.57 | 80 | 20 | 54.05 | 43.44 | 55.45 |
| F-8.2 GMA 70 30 5 4 6.28 60 5 2.33 14.11 79.42 F-8.3 GMA 70 30 5 4 1.57 60 20 43.45 31.74 76.16 F-8.4 GMA 70 30 5 4 1.57 60 20 43.45 44 40.01 F-9.2 GMA 30 70 5 4 1.57 60 20 42.93 35.15 34.36 F-9.4 GMA 30 70 5 4 1.57 60 20 42.93 35.15 34.36 F-17.1 GMA 30 70 1 4 5.28 80 5 29.67.08 58.63 32.55 F-17.2 GMA 30 70 1 4 1.05 80 20 57.71 50.32 32.96 F-18.2 GMA 30 70 1 4 1.57 60 20 2.79 3.47 3.43 3.14.4 5.43.1 4.54.43 </td <td>F-7_4</td> <td>GMA</td> <td>50</td> <td>50</td> <td>1</td> <td>4</td> <td>1.05</td> <td>80</td> <td>29.9</td> <td>63.75</td> <td>53.84</td> <td>54.21</td> | F-7_4 | GMA | 50 | 50 | 1 | 4 | 1.05 | 80 | 29.9 | 63.75 | 53.84 | 54.21 |
| F=8_3 GMA 70 30 5 4 3.14 60 10 30.4 20.6 77.69 F=8_3 GMA 70 30 5 4 1.05 60 29.9 54.7 42.33 74.83 F=9_1 GMA 30 70 5 4 3.14 60 10 29.02 42.33 35.15 34.36 F=9_3 GMA 30 70 5 4 1.15 60 29.9 51.43 34.74 35.31 34.34 36.7 F-17.1 GMA 30 70 1 4 1.25 80 5 29.64 22.05 35.55 F-17.4 GMA 30 70 1 4 1.25 80 29.9 67.08 33.23 39.6 5 37.4 33.05 32.05 33.44 33.44 80 10 42.01 44.54 44.54 F18.4 GMA 30 70 1 4 3.14 80 10 42.01 44.53 31.44 47.43 | F-8_1 | GMA | 70 | 30 | 5 | 4 | 6.28 | 60 | 5 | 23.5 | 14.21 | 79.42 |
| F=8_4 GMA 70 30 5 4 1.57 60 20 4.4.3 31.4 7.4.83 F=9_1 GMA 30 70 5 4 6.28 60 5 22.7 1.4.64 40.01 F=9_2 GMA 30 70 5 4 1.57 60 20 4.2.3 35.15 34.36 F=9_2 GMA 30 70 5 4 1.57 60 20.9 51.43 43.74 43.51 F-17-1 GMA 30 70 1 4 1.57 80 20.9 57.71 50.32 32.96 F-17-2 GMA 30 70 1 4 1.57 80 20.9 57.71 50.32 32.95 F-18-1 GMA 30 70 1 4 1.57 80 20.9 57.71 50.32 32.96 F-18-3 GMA 30 70 1 4 1.57 80 20.9 57.87 32.05 36.48 F-18-3 | F-8_2 | GMA | 70 | 30 | 5 | 4 | 3.14 | 60 | 10 | 30.74 | 20.6 | 77.69 |
| F=A GMA 70 30 5 4 1.05 60 29.9 54.7 42.33 74.83 F=9.1 GMA 30 70 5 4 5.14 60 10 29.06 21.34 35.55 F-9.3 GMA 30 70 5 4 1.57 60 20 42.33 35.55 F-17.4 GMA 30 70 1 4 5.48 80 5 29.64 22.05 35.56 F-17.4 GMA 30 70 1 4 1.157 80 20 57.71 50.32 32.96 F-17.4 GMA 30 70 1 4 1.05 60 29.9 34.8 27.97 34.75 F-18.2 GMA 30 70 1 4 1.05 60 29.9 34.8 27.97 34.77 F-18.4 GMA 30 70 5 4 1.05 60 29.9 34.8 27.97 34.74 33.14 F-18.4 GM | F-8_3 | GMA | 70 | 30 | 5 | 4 | 1.57 | 60 | 20 | 43.45 | 31.74 | 76.16 |
| F=2_1 GMA 30 70 5 4 6.28 60 5 22.78 14.64 40.01 F=3_2 GMA 30 70 5 4 1.57 60 29.9 51.43 43.78 F+1.71 GMA 30 70 1 4 62.8 80 5 29.64 22.05 35.55 F-1.71- GMA 30 70 1 4 6.28 80 5 29.64 22.05 35.55 F-1.71- GMA 30 70 1 4 1.57 80 20.9 67.08 56.3 32.55 F-1.81 GMA 30 70 1 4 6.28 60 5 16.91 10.21 41.52 F-1.84 GMA 30 70 1 4 1.57 60 20.9 74.8 27.73 84.77 F-1.84 GMA 30 70 5 4 1.57 80 20.72.73 84.73 33.4 F-2.11 GMA 30 7 | F-8_4 | GMA | 70 | 30 | 5 | 4 | 1.05 | 60 | 29.9 | 54.7 | 42.93 | 74.83 |
| F-9_2 GMA 30 70 5 4 3.14 60 10 1206 21.34 36.86 F-9_3 GMA 30 70 5 4 1.05 60 29.9 51.53 34.35.15 F-17.1 GMA 30 70 1 4 3.14 80 10 42.205 35.56 F-17.1 GMA 30 70 1 4 3.14 80 10 52.05 32.32 32.96 F-17.4 GMA 30 70 1 4 1.57 80 29.9 67.08 59.6 32.255 F-18.2 GMA 30 70 1 4 1.57 60 20 27.97 34.77 F-18.4 GMA 30 70 5 4 5.28 80 5 33.4 68.68 F-21.2 GMA 30 70 5 4 1.57 80 20 7.33 61.23 23.31 F-33.4 GMA 60 40 5 4 | F-9_1 | GMA | 30 | 70 | 5 | 4 | 6.28 | 60 | 5 | 22.78 | 14.64 | 40.01 |
| F-9_4 GMA 30 70 5 4 1.57 60 20 42.93 35.15 34.36 F-17-1 GMA 30 70 1 4 6.28 80 5 29.9 51.43 43.14 43.51 F-17-2 GMA 30 70 1 4 6.28 80 5 29.9 67.08 50.6 32.55 F-17-4 GMA 30 70 1 4 1.57 80 20 57.71 50.32 32.96 F-18-1 GMA 30 70 1 4 1.57 60 20 27.69 19.86 37.47 F-18-3 GMA 30 70 1 4 1.05 60 29.9 79.86 37.47 37.47 33.14 F-18-3 GMA 30 70 5 4 1.05 80 29.9 79.58 74.07 31.48 F-21-4 GMA 30 70 5 4 1.05 80 29.9 79.58 73.07 3 | F-9_2 | GMA | 30 | 70 | 5 | 4 | 3.14 | 60 | 10 | 29.06 | 21.34 | 36.86 |
| F-4 GMA 30 70 5 4 1.05 60 29.9 51.43 43.74 33.51 F-17.1 GMA 30 70 1 4 5.14 80 5 26.64 22.05 35.55 F-17.4 GMA 30 70 1 4 1.57 80 29.9 67.08 59.6 32.55 F-18.1 GMA 30 70 1 4 1.57 60 20 27.09 1.84 1.54 F-18.4 GMA 30 70 1 4 1.57 60 20 27.39 34.77 F-18.4 GMA 30 70 5 4 1.57 80 20 72.3 64.92 32.31 F-21.3 GMA 30 70 5 4 1.157 80 20 72.3 64.92 32.31 F-21.4 GMA 30 70 5 4 1.157 80 20 72.3 64.92 32.31 F-21.4 GMA 30 | F-9_3 | GMA | 30 | 70 | 5 | 4 | 1.57 | 60 | 20 | 42.93 | 35.15 | 34.36 |
| F-17-1 GMA 30 70 1 4 6.28 80 5 2.964 2.05 36.55 F-17-2 GMA 30 70 1 4 1.57 80 20 57.71 50.32 32.96 F-17-4 GMA 30 70 1 4 1.57 80 20 57.71 50.32 32.96 F-18-1 GMA 30 70 1 4 6.28 60 5 16.91 10.21 41.52 F-18-3 GMA 30 70 1 4 1.57 60 29.9 37.8 20.57.8 34.77 F-21-1 GMA 30 70 5 4 1.57 80 20 72.3 64.92 32.31 F-21-3 GMA 60 70 5 4 1.05 80 29.9 73.87 84.22 33.14 F-31-3 GMA 60 40 5 4 1.05 80 29.9 53.87 33.59 66.25 F-33-4 <t< td=""><td>F-9_4</td><td>GMA</td><td>30</td><td>70</td><td>5</td><td>4</td><td>1.05</td><td>60</td><td>29.9</td><td>51.43</td><td>43.74</td><td>33.51</td></t<> | F-9_4 | GMA | 30 | 70 | 5 | 4 | 1.05 | 60 | 29.9 | 51.43 | 43.74 | 33.51 |
| F-17-2 GMA 30 70 1 4 3.14 80 10 42.01 34.28 34.44 F-17-3 GMA 30 70 1 4 1.05 80 29.9 67.08 59.6 32.55 F-18-1 GMA 30 70 1 4 6.28 60 5 16.91 10.21 41.52 F-18-2 GMA 30 70 1 4 1.57 60 20.9 34.8 27.97 34.77 F-18-4 GMA 30 70 5 4 6.28 80 5 39.7 32.05 34.68 F-21-2 GMA 30 70 5 4 1.57 80 20.7 72.3 64.92 33.14 F-21-2 GMA 30 70 5 4 1.57 80 20.7 72.3 64.92 33.14 F-21-2 GMA 30 70 5 4 1.57 60 20 43.96 35.95 66.25 73.37 73.7 | F-17-1 | GMA | 30 | 70 | 1 | 4 | 6.28 | 80 | 5 | 29.64 | 22.05 | 36.56 |
| F-17-3 GMA 30 70 1 4 1.57 80 20 57.11 50.32 32.55 F-18-1 GMA 30 70 1 4 6.28 60 5 16.91 10.21 41.52 F-18-2 GMA 30 70 1 4 1.57 60 20.9 97.68 73.77 37.77 F-18-4 GMA 30 70 1 4 1.57 60 20 27.69 18.86 37.4 F-18-3 GMA 30 70 5 4 1.57 80 20 72.3 64.42 32.31 F-21-1 GMA 30 70 5 4 1.57 80 20 72.3 64.42 32.31 F-21-4 GMA 30 70 5 4 1.57 60 20 72.3 64.92 32.31 F-31-2 GMA 60 40 5 4 1.57 60 20 43.56 57.11 50.56 57.13.57 50.77.13.37 | F-17-2 | GMA | 30 | 70 | 1 | 4 | 3.14 | 80 | 10 | 42.01 | 34.28 | 34.44 |
| F-174 GMA 30 70 1 4 1.05 80 29.9 67.08 59.6 22.55 F-18-1 GMA 30 70 1 4 3.14 60 10 20.19 12.18 41.52 F-18-3 GMA 30 70 1 4 1.05 60 20.9 34.8 27.97 34.77 F-18-4 GMA 30 70 1 4 1.05 60 29.9 34.8 27.97 34.77 F-11-4 GMA 30 70 5 4 6.28 80 5 39.7 32.05 34.68 F-21-2 GMA 30 70 5 4 1.67 80 20.9 79.8 73.07 1.82 F-31-1 GMA 60 40 5 4 1.57 60 20.9 73.82 67.33 68.73 68.25 67.34 83.14 60 100 27.32 64.82 67.34 83.59 64.25 64.23 66.2 5 3.43.75 64. | F-17-3 | GMA | 30 | 70 | 1 | 4 | 1.57 | 80 | 20 | 57.71 | 50.32 | 32.96 |
| F-18-1 GMA 30 70 1 4 6.28 60 5 16.91 10.21 41.54 F-18-2 GMA 30 70 1 4 1.57 60 20 27.69 19.86 37.4 F-18-4 GMA 30 70 1 4 1.57 60 20 27.69 19.86 37.4 F-12-1 GMA 30 70 5 4 1.57 60 20.9 72.8 73.07 34.87 F-21-3 GMA 30 70 5 4 1.57 80 29.9 73.87 64.92 32.31 F-21-3 GMA 60 40 5 4 6.28 60 10 31.74 23.26 67.18 F-33-1 GMA 60 40 5 4 1.57 60 20 43.56 63.59 66.25 F-33-4 GMA 20 80 5 4 1.57 60 20 43.57 64.83 F-33-5 GMA 20< | F-17-4 | GMA | 30 | 70 | 1 | 4 | 1.05 | 80 | 29.9 | 67.08 | 59.6 | 32.55 |
| F-18-2 GMA 30 70 1 4 3.14 60 10 20.19 12.18 41.54 F-18-3 GMA 30 70 1 4 1.57 60 20 27.69 13.86 37.7 34.77 F-12-1 GMA 30 70 5 4 6.28 80 5 39.7 32.05 34.68 F-12-13 GMA 30 70 5 4 1.57 80 20 72.3 64.92 23.31 F-21-4 GMA 60 40 5 4 1.57 80 20 72.3 64.92 23.31 F-33-1 GMA 60 40 5 4 1.57 60 20 24.51 16.64 68.84 F-33-3 GMA 60 40 5 4 1.57 60 20 24.51 13.64 68.28 66 5 24.51 16.64 88.84 F-33-5 GMA 20 80 5 4 1.05 60 29.9 <td>F-18-1</td> <td>GMA</td> <td>30</td> <td>70</td> <td>1</td> <td>4</td> <td>6.28</td> <td>60</td> <td>5</td> <td>16.91</td> <td>10.21</td> <td>41.52</td> | F-18-1 | GMA | 30 | 70 | 1 | 4 | 6.28 | 60 | 5 | 16.91 | 10.21 | 41.52 |
| F-18-3 GMA 30 70 1 4 1.57 60 29.9 34.8 27.97 34.77 F-11-1 GMA 30 70 5 4 6.28 80 5 39.7 32.05 34.68 F-21-1 GMA 30 70 5 4 1.57 80 20 72.3 64.92 32.31 F-21-3 GMA 30 70 5 4 1.57 80 20 7.23 64.92 32.31 F-31-4 GMA 60 40 5 4 1.57 60 10 31.74 23.26 67.18 F-33-3 GMA 60 40 5 4 1.57 60 20 43.96 33.59 66.25 F-33-6 GMA 20 80 5 4 1.57 60 20 43.96 32.54 7.43 F-35-3 GMA 20 80 5 4 1.57 60 20 43.53 2.511 F-35-4 GMA 20 | F-18-2 | GMA | 30 | 70 | 1 | 4 | 3.14 | 60 | 10 | 20.19 | 12.18 | 41.54 |
| F-184 GMA 30 70 1 4 1.05 60 2.9.3 34.8 27.97 34.77 F-21-2 GMA 30 70 5 4 6.28 80 9.5 39.7 32.05 34.68 F-21-2 GMA 30 70 5 4 1.57 80 20 72.3 64.92 32.31 F-21-4 GMA 60 40 5 4 1.05 80 29.9 79.8 73.07 18.2 F-33-3 GMA 60 40 5 4 1.157 60 20 43.96 33.59 66.25 F-33-3 GMA 60 40 5 4 1.05 60 29.9 53.87 43.75 64.87 F-35-3 GMA 20 80 5 4 1.05 60 29.9 53.87 43.75 64.82 F-35-3 GMA 20 80 5 4 1.05 60 29.0 40.57 34.08 22.93 57.71 53.48 | F-18-3 | GMA | 30 | 70 | 1 | 4 | 1.57 | 60 | 20 | 27.69 | 19.86 | 37.4 |
| F-21-1 GMA 30 70 5 4 6.28 80 5 39.7 32.05 34.68 F-21-3 GMA 30 70 5 4 3.14 80 10 54.87 47.45 33.14 F-21-3 GMA 30 70 5 4 1.05 80 20 72.3 64.92 32.31.41 F-33-1 GMA 60 40 5 4 3.14 60 10 31.74 23.26 67.18 F-33-3 GMA 60 40 5 4 1.57 60 20 43.96 33.59 66.25 F-33-4 GMA 20 80 5 4 6.28 60 5 20.22 1.37.7 7.43 F-35-3 GMA 20 80 5 4 1.57 60 20 40.57 34.08 22.51 F-35-3 GMA 20 80 5 4 1.57 60 20 27.43 52.62 F-37-4 GMA 20 </td <td>F-18-4</td> <td>GMA</td> <td>30</td> <td>70</td> <td>1</td> <td>4</td> <td>1.05</td> <td>60</td> <td>29.9</td> <td>34.8</td> <td>27.97</td> <td>34.77</td> | F-18-4 | GMA | 30 | 70 | 1 | 4 | 1.05 | 60 | 29.9 | 34.8 | 27.97 | 34.77 |
| F-21-2 GMA 30 70 5 4 3.14 80 10 5.4.8 7.4.5 3.1.4 F-21-4 GMA 30 70 5 4 1.57 80 29.9 79.58 73.07 31.82 F-33-1 GMA 60 40 5 4 6.28 60 5 24.51 16.64 68.84 F-33-3 GMA 60 40 5 4 1.05 60 20 43.96 33.59 66.25 F-33-3 GMA 60 40 5 4 1.05 60 20.9 43.96 33.59 66.25 F-35-3 GMA 20 80 5 4 3.14 60 10 27.32 20.06 25.4 F-35-3 GMA 20 80 5 4 1.05 60 29.9 5.47 3.52.81 F-37-3 GMA 40 60 1 4 5.28 60 5 16.17 9.63 52.81 F-37-2 GMA | F-21-1 | GMA | 30 | 70 | 5 | 4 | 6.28 | 80 | 5 | 39.7 | 32.05 | 34.68 |
| F-21-3 GMA 30 70 5 4 1.57 80 20 72.3 64.92 32.31 F-21-4 GMA 60 40 5 4 1.05 80 29.9 79.58 73.07 31.82 F-33-1 GMA 60 40 5 4 3.14 60 10 31.74 23.25 67.18 F-33-3 GMA 60 40 5 4 1.05 60 29.9 53.87 43.75 64.87 F-33-1 GMA 20 80 5 4 3.14 60 10 27.32 20.06 25.4 F-35-3 GMA 20 80 5 4 1.57 60 20 40.57 34.08 22.93 F-35-4 GMA 20 80 5 4 1.57 60 20.9 50.61 43.53 22.93 F-37-4 GMA 40 60 1 4 3.14 60 10 20.24 12.43 52.08 F-37-3 < | F-21-2 | GMA | 30 | 70 | 5 | 4 | 3.14 | 80 | 10 | 54.87 | 47.45 | 33.14 |
| F-214 GMA 30 70 5 4 1.05 80 29.9 79.88 73.07 31.82 F-33-1 GMA 60 40 5 4 6.28 60 5 24.51 16.64 68.84 F-33-2 GMA 60 40 5 4 1.15 60 20 43.96 33.59 66.25 F-33-1 GMA 60 40 5 4 1.05 60 20 43.96 33.59 66.25 F-35-1 GMA 20 80 5 4 3.14 60 10 27.32 20.06 25.4 F-35-3 GMA 20 80 5 4 1.05 60 29.9 50.61 43.53 22.93 F-37-1 GMA 40 60 1 4 6.28 60 5 8.77 4.165 4.125 60 5 8.77 4.183 2.43 52.08 F-37-3 GMA 40 60 1 4 1.05 60 29.9 <td>F-21-3</td> <td>GMA</td> <td>30</td> <td>70</td> <td>5</td> <td>4</td> <td>1.57</td> <td>80</td> <td>20</td> <td>72.3</td> <td>64.92</td> <td>32.31</td> | F-21-3 | GMA | 30 | 70 | 5 | 4 | 1.57 | 80 | 20 | 72.3 | 64.92 | 32.31 |
| F.33-1GMA6040546.2860524.5116.6468.84F.33-2GMA6040543.14601031.7423.2667.18F.33-3GMA6040541.576029.953.8743.7564.87F.35-1GMA2080546.2860522.213.3727.43F.35-2GMA2080541.57602040.5734.0822.93F.35-3GMA2080541.57602040.5734.0822.93F.35-4GMA2080541.056029.950.6143.5322.51F.37-1GMA4060146.2860516.179.6352.81F.37-2GMA4060141.056020.935.4728.6745.19F.37-3GMA4060141.57602027.4520.7646.85F.37-4GMA4060141.056029.935.4711.8342.56F.38-1PACS5050541.5760201616.8748.68F.38-4PACS5050541.57602023.2818.6934.81F.38-2< | F-21-4 | GMA | 30 | 70 | 5 | 4 | 1.05 | 80 | 29.9 | 79.58 | 73.07 | 31.82 |
| F-33-2 GMA 60 40 5 4 3.14 60 10 31.74 23.26 67.18 F-33-3 GMA 60 40 5 4 1.57 60 20 43.96 33.59 66.25 F-33-1 GMA 20 80 5 4 6.28 60 5 20.22 13.37 27.43 F-35-2 GMA 20 80 5 4 1.57 60 20 40.57 34.08 22.93 F-35-3 GMA 20 80 5 4 1.57 60 20 40.57 34.08 22.93 F-37-1 GMA 40 60 1 4 3.14 60 10 20.28 12.43 52.08 F-37-4 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-33-4 GMA 40 60 1 4 1.57 60 20 16 16.87 48.68 F-33-4 PACS< | F-33-1 | GMA | 60 | 40 | 5 | 4 | 6.28 | 60 | 5 | 24.51 | 16.64 | 68.84 |
| F-33-3 GMA 60 40 5 4 1.57 60 20 43.96 33.59 66.25 F-33-4 GMA 60 40 5 4 6.28 60 29.9 53.87 43.75 64.87 F-35-2 GMA 20 80 5 4 6.28 60 5 20.22 13.37 27.43 F-35-3 GMA 20 80 5 4 1.57 60 20 40.57 34.08 22.93 F-35-4 GMA 20 80 5 4 1.05 60 20 40.57 34.08 22.93 F-37-3 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-37-4 GMA 40 60 1 4 1.05 60 29.9 35.47 28.67 45.19 F-38-2 PACS 50 50 5 4 3.14 60 10 10.67 12.47 46.11 F-38-2 < | F-33-2 | GMA | 60 | 40 | 5 | 4 | 3.14 | 60 | 10 | 31.74 | 23.26 | 67.18 |
| F-33-4 GMA 60 40 5 4 1.05 60 29.9 53.87 43.75 64.87 F-35-1 GMA 20 80 5 4 6.28 60 5 20.22 13.37 27.43 F-35-3 GMA 20 80 5 4 1.157 60 20 40.57 34.08 22.93 F-35-3 GMA 20 80 5 4 1.57 60 20 40.57 34.08 22.93 F-37-1 GMA 40 60 1 4 6.28 60 5 16.17 9.63 52.81 F-37-3 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-33-2 PACS 50 50 5 4 6.28 60 5 8.77 11.83 42.56 F-38-2 PACS 50 50 5 4 1.57 60 20 1.6 16.87 48.68 5 1.324 11.47< | F-33-3 | GMA | 60 | 40 | 5 | 4 | 1.57 | 60 | 20 | 43.96 | 33.59 | 66.25 |
| F-35-1 GMA 20 80 5 4 6.28 60 5 20.22 13.37 27.43 F-35-2 GMA 20 80 5 4 3.14 60 10 27.32 20.06 25.4 F-35-3 GMA 20 80 5 4 1.05 60 29.9 50.61 43.53 22.51 F-37-1 GMA 40 60 1 4 6.28 60 5 16.17 9.63 52.81 F-37-3 GMA 40 60 1 4 3.14 60 10 20.28 12.43 52.08 F-37-3 GMA 40 60 1 4 1.05 60 29.9 35.47 28.67 45.19 F-38-1 PACS 50 50 5 4 1.05 60 20.9 16 16.87 48.68 F-38-3 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.02 F-39-1 <t< td=""><td>F-33-4</td><td>GMA</td><td>60</td><td>40</td><td>5</td><td>4</td><td>1.05</td><td>60</td><td>29.9</td><td>53.87</td><td>43.75</td><td>64.87</td></t<> | F-33-4 | GMA | 60 | 40 | 5 | 4 | 1.05 | 60 | 29.9 | 53.87 | 43.75 | 64.87 |
| F-35-2 GMA 20 80 5 4 3.14 60 10 27.32 20.06 25.4 F-35-3 GMA 20 80 5 4 1.57 60 20 40.57 34.08 22.93 F-35-4 GMA 40 60 1 4 6.28 60 5 16.17 9.63 52.81 F-37-3 GMA 40 60 1 4 3.14 60 10 20.28 16.17 9.63 52.81 F-37-3 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-37-4 GMA 40 60 1 4 1.57 60 20 16.17 9.63 54 1.57 F-38-1 PACS 50 50 5 4 6.28 60 5 8.77 11.83 42.56 F-38-1 PACS 50 50 5 4 1.57 60 20 20.46 20.44 50.02 21.41.47< | F-35-1 | GMA | 20 | 80 | 5 | 4 | 6.28 | 60 | 5 | 20.22 | 13.37 | 27.43 |
| F-35-3 GMA 20 80 5 4 1.57 60 20 40.57 34.08 22.93 F-35-4 GMA 20 80 5 4 1.05 60 29.9 50.61 43.53 22.51 F-37-1 GMA 40 60 1 4 6.28 60 5 16.17 9.63 52.81 F-37-2 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-37-3 GMA 40 60 1 4 1.05 60 20 27.45 20.76 46.85 F-38-1 PACS 50 50 5 4 6.28 60 5 8.77 11.83 42.56 F-38-1 PACS 50 50 5 4 1.57 60 20 16 16.87 48.68 F-38-1 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.2 F-39-1 PA | F-35-2 | GMA | 20 | 80 | 5 | 4 | 3.14 | 60 | 10 | 27.32 | 20.06 | 25.4 |
| F-35-4 GMA 20 80 5 4 1.05 60 29.9 50.61 43.53 22.51 F-37-1 GMA 40 60 1 4 6.28 60 5 16.17 9.63 52.81 F-37-3 GMA 40 60 1 4 3.14 60 10 20.28 12.43 52.08 F-37-3 GMA 40 60 1 4 1.05 60 29.9 35.47 28.67 45.19 F-38-1 PACS 50 50 5 4 6.28 60 5 8.77 11.83 42.56 F-38-2 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.02 F-39-1 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.02 F-39-1 PACS 30 70 5 4 1.05 60 29.9 31.98 26.12 34.81 F-39-3 | F-35-3 | GMA | 20 | 80 | 5 | 4 | 1.57 | 60 | 20 | 40.57 | 34.08 | 22.93 |
| F-37-1 GMA 40 60 1 4 6.28 60 5 16.17 9.63 52.81 F-37-2 GMA 40 60 1 4 3.14 60 10 20.28 12.43 52.08 F-37-3 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-37-4 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-38-1 PACS 50 50 5 4 6.12 60 5 8.77 11.83 42.56 F-38-2 PACS 50 50 5 4 1.57 60 20 16 16.87 48.68 F-38-1 PACS 50 50 5 4 1.57 60 20 16 16.37 48.68 F-39-1 PACS 30 70 5 4 1.57 60 20 23.28 18.46 31.1 F-39-3 PACS <td>F-35-4</td> <td>GMA</td> <td>20</td> <td>80</td> <td>5</td> <td>4</td> <td>1.05</td> <td>60</td> <td>29.9</td> <td>50.61</td> <td>43.53</td> <td>22.51</td> | F-35-4 | GMA | 20 | 80 | 5 | 4 | 1.05 | 60 | 29.9 | 50.61 | 43.53 | 22.51 |
| F-37-2 GMA 40 60 1 4 3.14 60 10 20.28 12.43 52.08 F-37-3 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-37-4 GMA 40 60 1 4 1.05 60 29.9 35.47 28.67 45.19 F-38-1 PACS 50 50 5 4 6.28 60 5 8.77 11.83 42.56 F-38-2 PACS 50 50 5 4 1.157 60 20 16 16.87 48.68 F-38-4 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.02 F-39-1 PACS 30 70 5 4 1.157 60 20 23.28 18.69 34.81 F-39-3 PACS 30 70 5 4 1.05 60 29.9 31.98 26.12 34.42 F-40-1 | F-37-1 | GMA | 40 | 60 | 1 | 4 | 6.28 | 60 | 5 | 16.17 | 9.63 | 52.81 |
| F-37-3 GMA 40 60 1 4 1.57 60 20 27.45 20.76 46.85 F-37-4 GMA 40 60 1 4 1.05 60 29.9 35.47 28.67 45.19 F-38-1 PACS 50 50 5 4 6.28 60 5 8.77 11.83 42.56 F-38-2 PACS 50 50 5 4 1.57 60 20 16 16.87 48.68 F-38-4 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.02 F-39-1 PACS 30 70 5 4 6.28 60 5 13.24 11.47 33.1 F-39-3 PACS 30 70 5 4 1.57 60 20 23.28 18.69 34.81 F-39-4 PACS 30 70 5 4 1.57 60 20 14.83 16.58 67.6 F-40-1 <td< td=""><td>F-37-2</td><td>GMA</td><td>40</td><td>60</td><td>1</td><td>4</td><td>3.14</td><td>60</td><td>10</td><td>20.28</td><td>12.43</td><td>52.08</td></td<> | F-37-2 | GMA | 40 | 60 | 1 | 4 | 3.14 | 60 | 10 | 20.28 | 12.43 | 52.08 |
| F-37-4 GMA 40 60 1 4 1.05 60 29.9 35.47 28.67 45.19 F-38-1 PACS 50 50 5 4 6.28 60 5 8.77 11.83 42.56 F-38-2 PACS 50 50 5 4 3.14 60 10 10.67 12.47 46.11 F-38-3 PACS 50 50 5 4 1.57 60 20 16 16.87 48.68 F-39-1 PACS 30 70 5 4 6.28 60 5 13.24 11.47 33.1 F-39-2 PACS 30 70 5 4 1.57 60 20.9 31.98 26.12 34.42 F-39-3 PACS 30 70 5 4 1.57 60 20.9 31.98 26.12 34.42 F-39-4 PACS 70 30 5 4 6.28 60 5 9.39 11.26 66.05 F-40-2 < | F-37-3 | GMA | 40 | 60 | 1 | 4 | 1.57 | 60 | 20 | 27.45 | 20.76 | 46.85 |
| F-38-1 PACS 50 50 5 4 6.28 60 5 8.77 11.83 42.56 F-38-2 PACS 50 50 50 5 4 3.14 60 10 10.67 12.47 46.11 F-38-3 PACS 50 50 5 4 1.57 60 20 16 16.87 48.68 F-38-4 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.02 F-39-1 PACS 30 70 5 4 3.14 60 10 16.14 13.31 34.2 F-39-3 PACS 30 70 5 4 1.57 60 20 23.28 18.69 34.81 F-39-4 PACS 30 70 5 4 1.05 60 29.9 31.98 26.12 34.42 F-40-1 PACS 70 30 5 4 1.05 60 29.9 31.98 26.12 34.22 < | F-37-4 | GMA | 40 | 60 | 1 | 4 | 1.05 | 60 | 29.9 | 35.47 | 28.67 | 45.19 |
| F-38-2 PACS 50 50 5 4 3.14 60 10 10.67 12.47 46.11 F-38-3 PACS 50 50 5 4 1.57 60 20 16 16.87 48.68 F-38-4 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.02 F-39-1 PACS 30 70 5 4 3.14 60 10 16.14 13.31 34.2 F-39-3 PACS 30 70 5 4 1.05 60 29.9 31.98 26.12 34.81 F-39-4 PACS 30 70 5 4 1.05 60 29.9 31.98 26.12 34.42 F-40-1 PACS 70 30 5 4 3.14 60 10 11.2 12.84 67.06 F-40-2 PACS 70 30 5 4 1.05 60 29.9 19.02 21.93 66.93 F-41-4< | F-38-1 | PACS | 50 | 50 | 5 | 4 | 6.28 | 60 | 5 | 8.77 | 11.83 | 42.56 |
| F-38-3 PACS 50 50 5 4 1.57 60 20 16 16.87 48.68 F-38-4 PACS 50 50 5 4 1.05 60 29.9 20.46 20.44 50.02 F-39-1 PACS 30 70 5 4 6.28 60 5 13.24 11.47 33.1 F-39-2 PACS 30 70 5 4 3.14 60 10 16.14 13.31 34.2 F-39-3 PACS 30 70 5 4 1.57 60 20 23.28 18.69 34.81 F-39-4 PACS 30 70 5 4 1.57 60 20 23.28 18.69 34.81 F-40-1 PACS 70 30 5 4 1.57 60 20 14.83 16.58 67.6 F-40-2 PACS 70 30 5 4 1.57 60 20 14.83 16.58 67.6 F-40-4 <th< td=""><td>F-38-2</td><td>PACS</td><td>50</td><td>50</td><td>5</td><td>4</td><td>3.14</td><td>60</td><td>10</td><td>10.67</td><td>12.47</td><td>46.11</td></th<> | F-38-2 | PACS | 50 | 50 | 5 | 4 | 3.14 | 60 | 10 | 10.67 | 12.47 | 46.11 |
| F-38-4PACS5050541.056029.920.4620.4450.02F-39-1PACS3070546.2860513.2411.4733.1F-39-2PACS3070543.14601016.1413.3134.2F-39-3PACS3070541.57602023.2818.6934.81F-39-4PACS3070541.056029.931.9826.1234.42F-40-1PACS7030546.286059.3911.2666.05F-40-2PACS7030541.57602014.8316.5867.6F-40-3PACS7030541.57602014.8316.5867.6F-40-4PACS7030541.056029.919.0221.9366.93F-41-1PACS5050543.14801029.4328.7250.62F-41-3PACS5050543.14801029.4328.7250.62F-41-1PACS5050146.286055.048.5837.03F-42-2PACS5050141.5760209.9411.7645.81F-42-2< | F-38-3 | PACS | 50 | 50 | 5 | 4 | 1.57 | 60 | 20 | 16 | 16.87 | 48.68 |
| F-39-1PACS3070546.2860513.2411.4733.1F-39-2PACS3070543.14601016.1413.3134.2F-39-3PACS3070541.57602023.2818.6934.81F-39-4PACS3070541.056029.931.9826.1234.42F-40-1PACS7030546.286059.3911.2666.05F-40-2PACS7030541.57602014.8316.5867.6F-40-3PACS7030541.57602014.8316.5867.6F-40-4PACS7030541.576029.919.0221.9366.93F-41-1PACS505050546.2880520.7721.1149.59F-41-2PACS505050541.57802041.2537.6952.25F-41-1PACS505050146.286055.048.5837.03F-41-2PACS505050146.286055.048.5837.03F-42-1PACS505050141.5760209.44 <td>F-38-4</td> <td>PACS</td> <td>50</td> <td>50</td> <td>5</td> <td>4</td> <td>1.05</td> <td>60</td> <td>29.9</td> <td>20.46</td> <td>20.44</td> <td>50.02</td> | F-38-4 | PACS | 50 | 50 | 5 | 4 | 1.05 | 60 | 29.9 | 20.46 | 20.44 | 50.02 |
| F-39-2PACS3070543.14601016.1413.3134.2F-39-3PACS3070541.57602023.2818.6934.81F-39-4PACS3070541.056029.931.9826.1234.42F-40-1PACS7030546.286059.3911.2666.05F-40-2PACS7030543.14601011.212.8467.06F-40-3PACS7030541.57602014.8316.5867.6F-40-4PACS7030541.056029.919.0221.9366.93F-41-1PACS7030541.056029.919.0221.9366.93F-41-1PACS5050543.14801029.4328.7250.62F-41-2PACS5050541.57802041.2537.6952.25F-41-3PACS5050541.57802041.2537.6952.25F-42-1PACS5050146.286055.048.5837.03F-42-2PACS5050141.5760209.9411.7645.81F-42- | F-39-1 | PACS | 30 | 70 | 5 | 4 | 6.28 | 60 | 5 | 13.24 | 11.47 | 33.1 |
| F-39-3PACS3070541.57602023.2818.6934.81F-39-4PACS3070541.056029.931.9826.1234.42F-40-1PACS7030546.286059.3911.2666.05F-40-2PACS7030543.14601011.212.8467.06F-40-3PACS7030541.57602014.8316.5867.6F-40-4PACS7030541.056029.919.0221.9366.93F-41-1PACS5050546.2880520.7721.1149.59F-41-2PACS5050541.57802041.2537.6952.25F-41-3PACS5050541.57802041.2537.6952.25F-42-1PACS5050146.286055.048.5837.03F-42-2PACS5050141.5760209.9411.7645.81F-42-2PACS5050141.576029.913.1114.6447.24F-42-3PACS50505103.14601011.339.6154.12F-43- | F-39-2 | PACS | 30 | 70 | 5 | 4 | 3.14 | 60 | 10 | 16.14 | 13.31 | 34.2 |
| F-39-4PACS3070541.056029.931.9826.1234.42F-40-1PACS7030546.286059.3911.2666.05F-40-2PACS7030543.14601011.212.8467.06F-40-3PACS7030541.57602014.8316.5867.6F-40-4PACS7030541.056029.919.0221.9366.93F-41-1PACS505050546.2880520.7721.1149.59F-41-2PACS505050543.14801029.4328.7250.62F-41-3PACS505050541.57802041.2537.6952.25F-42-1PACS5050146.286055.048.5837.03F-42-2PACS5050141.5760209.9411.7645.81F-42-3PACS50505103.14601011.339.6154.12F-43-4PACS50505101.57602014.312.2853.8F-43-4PACS50505101.056029.917.0114.28 <td>F-39-3</td> <td>PACS</td> <td>30</td> <td>70</td> <td>5</td> <td>4</td> <td>1.57</td> <td>60</td> <td>20</td> <td>23.28</td> <td>18.69</td> <td>34.81</td> | F-39-3 | PACS | 30 | 70 | 5 | 4 | 1.57 | 60 | 20 | 23.28 | 18.69 | 34.81 |
| F-40-1PACS7030546.286059.3911.2666.05F-40-2PACS7030543.14601011.212.8467.06F-40-3PACS7030541.57602014.8316.5867.6F-40-4PACS7030541.056029.919.0221.9366.93F-41-1PACS5050546.2880520.7721.1149.59F-41-2PACS5050543.14801029.4328.7250.62F-41-3PACS5050541.57802041.2537.6952.25F-42-1PACS5050146.286055.048.5837.03F-42-2PACS5050143.1460107.069.2843.19F-42-3PACS5050141.5760209.9411.7645.81F-42-4PACS50505103.14601011.339.6154.12F-43-2PACS50505101.57602014.312.2853.8F-43-4PACS50505101.056029.917.0114.2854.36F-43-4 <td>F-39-4</td> <td>PACS</td> <td>30</td> <td>70</td> <td>5</td> <td>4</td> <td>1.05</td> <td>60</td> <td>29.9</td> <td>31.98</td> <td>26.12</td> <td>34.42</td> | F-39-4 | PACS | 30 | 70 | 5 | 4 | 1.05 | 60 | 29.9 | 31.98 | 26.12 | 34.42 |
| F-40-2PACS7030543.14601011.212.8467.06F-40-3PACS7030541.57602014.8316.5867.6F-40-4PACS7030541.056029.919.0221.9366.93F-41-1PACS5050546.2880520.7721.1149.59F-41-2PACS5050543.14801029.4328.7250.62F-41-3PACS5050541.57802041.2537.6952.25F-42-1PACS5050146.286055.048.5837.03F-42-2PACS5050143.1460107.069.2843.19F-42-3PACS5050141.5760209.9411.7645.81F-42-4PACS50505103.14601011.339.6154.12F-43-3PACS50505101.57602014.312.2853.8F-43-4PACS50505101.056029.917.0114.2854.36F-44-1PACS5050526.2860511.0912.9346.17F-44-2 </td <td>F-40-1</td> <td>PACS</td> <td>70</td> <td>30</td> <td>5</td> <td>4</td> <td>6.28</td> <td>60</td> <td>5</td> <td>9.39</td> <td>11.26</td> <td>66.05</td> | F-40-1 | PACS | 70 | 30 | 5 | 4 | 6.28 | 60 | 5 | 9.39 | 11.26 | 66.05 |
| F-40-3PACS7030541.57602014.8316.5867.6F-40-4PACS7030541.056029.919.0221.9366.93F-41-1PACS505050546.2880520.7721.1149.59F-41-2PACS505050543.14801029.4328.7250.62F-41-3PACS505050541.57802041.2537.6952.25F-42-1PACS505050146.286055.048.5837.03F-42-2PACS505050143.1460107.069.2843.19F-42-3PACS505050141.5760209.9411.7645.81F-42-4PACS505050141.056029.913.1114.6447.24F-43-2PACS50505103.14601011.339.6154.12F-43-3PACS50505101.57602014.3112.2853.8F-43-4PACS5050505101.056029.917.0114.2854.36F-44-1PACS5050505 | F-40-2 | PACS | 70 | 30 | 5 | 4 | 3.14 | 60 | 10 | 11.2 | 12.84 | 67.06 |
| F-40-4PACS7030541.056029.919.0221.9366.93F-41-1PACS5050546.2880520.7721.1149.59F-41-2PACS5050543.14801029.4328.7250.62F-41-3PACS5050541.57802041.2537.6952.25F-42-1PACS5050146.286055.048.5837.03F-42-2PACS5050143.1460107.069.2843.19F-42-3PACS5050141.5760209.9411.7645.81F-42-4PACS5050141.056029.913.1114.6447.24F-43-2PACS50505103.14601011.339.6154.12F-43-3PACS50505101.57602014.312.2853.8F-43-4PACS50505101.056029.917.0114.2854.36F-44-1PACS5050526.2860511.0912.9346.17F-44-2PACS5050523.14601014.941746.78 <td>F-40-3</td> <td>PACS</td> <td>70</td> <td>30</td> <td>5</td> <td>4</td> <td>1.57</td> <td>60</td> <td>20</td> <td>14.83</td> <td>16.58</td> <td>67.6</td> | F-40-3 | PACS | 70 | 30 | 5 | 4 | 1.57 | 60 | 20 | 14.83 | 16.58 | 67.6 |
| F-41-1 PACS 50 50 5 4 6.28 80 5 20.77 21.11 49.59 F-41-2 PACS 50 50 5 4 3.14 80 10 29.43 28.72 50.62 F-41-3 PACS 50 50 5 4 1.57 80 20 41.25 37.69 52.25 F-42-1 PACS 50 50 1 4 6.28 60 5 5.04 8.58 37.03 F-42-2 PACS 50 50 1 4 3.14 60 10 7.06 9.28 43.19 F-42-2 PACS 50 50 1 4 1.57 60 20 9.94 11.76 45.81 F-42-4 PACS 50 50 1 4 1.05 60 29.9 13.11 14.64 47.24 F-43-2 PACS 50 50 5 10 3.14 60 10 11.33 9.61 54.12 F-43-3 <t< td=""><td>F-40-4</td><td>PACS</td><td>70</td><td>30</td><td>5</td><td>4</td><td>1.05</td><td>60</td><td>29.9</td><td>19.02</td><td>21.93</td><td>66.93</td></t<> | F-40-4 | PACS | 70 | 30 | 5 | 4 | 1.05 | 60 | 29.9 | 19.02 | 21.93 | 66.93 |
| F-41-2 PACS 50 50 5 4 3.14 80 10 29.43 28.72 50.62 F-41-3 PACS 50 50 5 4 1.57 80 20 41.25 37.69 52.25 F-42-1 PACS 50 50 1 4 6.28 60 5 5.04 8.58 37.03 F-42-2 PACS 50 50 1 4 3.14 60 10 7.06 9.28 43.19 F-42-2 PACS 50 50 1 4 1.57 60 20 9.94 11.76 45.81 F-42-4 PACS 50 50 1 4 1.05 60 29.9 13.11 14.64 47.24 F-43-2 PACS 50 50 5 10 3.14 60 10 11.33 9.61 54.12 F-43-3 PACS 50 50 5 10 1.57 60 20 14.3 12.28 53.8 F-43-4 <t< td=""><td>F-41-1</td><td>PACS</td><td>50</td><td>50</td><td>5</td><td>4</td><td>6.28</td><td>80</td><td>5</td><td>20.77</td><td>21.11</td><td>49.59</td></t<> | F-41-1 | PACS | 50 | 50 | 5 | 4 | 6.28 | 80 | 5 | 20.77 | 21.11 | 49.59 |
| F-41-3PACS5050541.57802041.25 37.69 52.25 F-42-1PACS505014 6.28 605 5.04 8.58 37.03 F-42-2PACS505014 3.14 6010 7.06 9.28 43.19 F-42-3PACS505014 1.57 6020 9.94 11.76 45.81 F-42-4PACS505014 1.05 6029.9 13.11 14.64 47.24 F-43-2PACS5050510 3.14 6010 11.33 9.61 54.12 F-43-3PACS5050510 1.57 6020 14.3 12.28 53.8 F-43-4PACS5050510 1.05 6029.9 17.01 14.28 54.36 F-44-1PACS505052 6.28 60 5 11.09 12.93 46.17 F-44-2PACS505052 3.14 60 10 14.94 17 46.78 | F-41-2 | PACS | 50 | 50 | 5 | 4 | 3.14 | 80 | 10 | 29.43 | 28.72 | 50.62 |
| F-42-1 PACS 50 50 1 4 6.28 60 5 5.04 8.58 37.03 F-42-2 PACS 50 50 1 4 3.14 60 10 7.06 9.28 43.19 F-42-3 PACS 50 50 1 4 1.57 60 20 9.94 11.76 45.81 F-42-4 PACS 50 50 1 4 1.57 60 20 9.94 11.76 45.81 F-42-4 PACS 50 50 1 4 1.05 60 29.9 13.11 14.64 47.24 F-43-2 PACS 50 50 5 10 3.14 60 10 11.33 9.61 54.12 F-43-3 PACS 50 50 5 10 1.05 60 29.9 17.01 14.28 53.8 F-43-4 PACS 50 50 50 5 10 1.05 60 29.9 17.01 14.28 54.36 < | F-41-3 | PACS | 50 | 50 | 5 | 4 | 1.57 | 80 | 20 | 41.25 | 37.69 | 52.25 |
| F-42-2PACS5050143.1460107.069.2843.19F-42-3PACS5050141.5760209.9411.7645.81F-42-4PACS5050141.056029.913.1114.6447.24F-43-2PACS50505103.14601011.339.6154.12F-43-3PACS50505101.57602014.312.2853.8F-43-4PACS50505101.056029.917.0114.2854.36F-44-1PACS5050526.2860511.0912.9346.17F-44-2PACS5050523.14601014.941746.78 | F-42-1 | PACS | 50 | 50 | 1 | 4 | 6.28 | 60 | 5 | 5.04 | 8.58 | 37.03 |
| F-42-3 PACS 50 50 1 4 1.57 60 20 9.94 11.76 45.81 F-42-4 PACS 50 50 1 4 1.57 60 20 9.94 11.76 45.81 F-42-4 PACS 50 50 1 4 1.05 60 29.9 13.11 14.64 47.24 F-43-2 PACS 50 50 5 10 3.14 60 10 11.33 9.61 54.12 F-43-3 PACS 50 50 5 10 1.57 60 20 14.3 12.28 53.8 F-43-4 PACS 50 50 5 10 1.05 60 29.9 17.01 14.28 54.36 F-44-1 PACS 50 50 5 2 6.28 60 5 11.09 12.93 46.17 F-44-2 PACS 50 50 50 5 2 3.14 60 10 14.94 17 46.78 <td>F-42-2</td> <td>PACS</td> <td>50</td> <td>50</td> <td>1</td> <td>4</td> <td>3.14</td> <td>60</td> <td>10</td> <td>7.06</td> <td>9.28</td> <td>43.19</td> | F-42-2 | PACS | 50 | 50 | 1 | 4 | 3.14 | 60 | 10 | 7.06 | 9.28 | 43.19 |
| F-42-4 PACS 50 50 1 4 1.05 60 29.9 13.11 14.64 47.24 F-43-2 PACS 50 50 5 10 3.14 60 10 11.33 9.61 54.12 F-43-3 PACS 50 50 5 10 1.57 60 20 14.3 12.28 53.8 F-43-4 PACS 50 50 5 10 1.65 60 29.9 17.01 14.28 54.12 F-43-4 PACS 50 50 5 10 1.65 60 29.9 17.01 14.28 54.36 F-44-1 PACS 50 50 5 2 6.28 60 5 11.09 12.93 46.17 F-44-2 PACS 50 50 5 2 3.14 60 10 14.94 17 46.78 | F-42-3 | PACS | 50 | 50 | 1 | 4 | 1.57 | 60 | 20 | 9.94 | 11.76 | 45.81 |
| F-43-2 PACS 50 50 5 10 3.14 60 10 11.33 9.61 54.12 F-43-3 PACS 50 50 5 10 1.57 60 20 14.3 12.28 53.8 F-43-4 PACS 50 50 5 10 1.05 60 29.9 17.01 14.28 54.36 F-44-1 PACS 50 50 5 2 6.28 60 5 11.09 12.93 46.17 F-44-2 PACS 50 50 5 2 3.14 60 10 14.94 17 46.78 | F-42-4 | PACS | 50 | 50 | 1 | 4 | 1.05 | 60 | 29.9 | 13.11 | 14.64 | 47.24 |
| F-43-3 PACS 50 50 5 10 1.57 60 20 14.3 12.28 53.8 F-43-4 PACS 50 50 5 10 1.05 60 29.9 17.01 14.28 54.36 F-44-1 PACS 50 50 5 2 6.28 60 5 11.09 12.93 46.17 F-44-2 PACS 50 50 5 2 3.14 60 10 14.94 17 46.78 | F-43-2 | PACS | 50 | 50 | 5 | 10 | 3.14 | 60 | 10 | 11.33 | 9.61 | 54.12 |
| F-43-4 PACS 50 50 5 10 1.05 60 29.9 17.01 14.28 54.36 F-44-1 PACS 50 50 5 2 6.28 60 5 11.09 12.93 46.17 F-44-2 PACS 50 50 5 2 3.14 60 10 14.94 17 46.78 | F-43-3 | PACS | 50 | 50 | 5 | 10 | 1.57 | 60 | 20 | 14.3 | 12.28 | 53.8 |
| F-44-1 PACS 50 50 5 2 6.28 60 5 11.09 12.93 46.17 F-44-2 PACS 50 50 5 2 3.14 60 10 14.94 17 46.78 | F-43-4 | PACS | 50 | 50 | 5 | 10 | 1.05 | 60 | 29.9 | 17.01 | 14.28 | 54.36 |
| F-44-2 PACS 50 50 5 2 3.14 60 10 14.94 17 46.78 | F-44-1 | PACS | 50 | 50 | 5 | 2 | 6.28 | 60 | 5 | 11.09 | 12.93 | 46.17 |
| | F-44-2 | PACS | 50 | 50 | 5 | 2 | 3.14 | 60 | 10 | 14.94 | 17 | 46.78 |

 Table S2-2. List of synthesized copolymers.

| | | M1 | M2 | Initiator | | Flow | Temperature | Reaction | M1 | M2 | M1 |
|------------|----------|-------------------|-------------------|-------------------|----|-----------|-------------|-----------|------------|------------|--------|
| Sample No. | M1 | composition ratio | composition ratio | composition ratio | SM | velocity | l°Cl | time | conversion | conversion | ICR |
| 5 44 3 | DAGG | [mol%] | [mol%] | [mol%] | 2 | [mL/min.] | | [min] | [%] | [%] | [mol%] |
| F-44-3 | PACS | 50 | 50 | 5 | 2 | 1.57 | 60 | 20 | 21.68 | 22.59 | 48.98 |
| F-44-4 | PACS | 50 | 50 | 5 | 2 | 1.05 | 60 | 29.9 | 27.65 | 27.82 | 49.85 |
| F-75-1 | PACS | 30 | 70 | 5 | 4 | 6.28 | 80 | 5 | 26.79 | 20.9 | 35.46 |
| F-75-2 | PACS | 30 | 70 | 5 | 4 | 3.14 | 80 | 10 | 39.47 | 29.74 | 36.26 |
| F-75-3 | PACS | 30 | 70 | 5 | 4 | 1.57 | 80 | 20 | 57.04 | 42.37 | 36.58 |
| F-3_1 | ST | 50 | 50 | 5 | 4 | 6.28 | 60 | 5 | 6.26 | 9.5 | 39.73 |
| F-3_2 | ST | 50 | 50 | 5 | 4 | 3.14 | 60 | 10 | 8.25 | 11.35 | 42.1 |
| F-3_3 | ST | 50 | 50 | 5 | 4 | 1.57 | 60 | 20 | 13.39 | 15.6 | 46.2 |
| F-3_4 | ST | 50 | 50 | 5 | 4 | 1.05 | 60 | 29.9 | 16.66 | 18.39 | 47.54 |
| F-10_1 | ST | 70 | 30 | 5 | 4 | 6.28 | 60 | 5 | 4.19 | 9.64 | 50.36 |
| F-10_2 | ST | 70 | 30 | 5 | 4 | 3.14 | 60 | 10 | 6.36 | 11.6 | 56.11 |
| F-10_3 | ST | 70 | 30 | 5 | 4 | 1.57 | 60 | 20 | 9.2 | 14.63 | 59.47 |
| F-10_4 | ST | 70 | 30 | 5 | 4 | 1.05 | 60 | 29.9 | 12.51 | 18.19 | 61.6 |
| F-11_1 | ST | 50 | 50 | 5 | 4 | 6.28 | 80 | 5 | 15.17 | 17.35 | 46.65 |
| F-11_2 | ST | 50 | 50 | 5 | 4 | 3.14 | 80 | 10 | 22.98 | 23.32 | 49.62 |
| F-11_3 | ST | 50 | 50 | 5 | 4 | 1.57 | 80 | 20 | 32.25 | 31.06 | 50.93 |
| F-11_4 | ST | 50 | 50 | 5 | 4 | 1.05 | 80 | 29.9 | 37.99 | 35.86 | 51.43 |
| F-12_1 | ST | 70 | 30 | 5 | 4 | 6.28 | 80 | 5 | 11.61 | 16.21 | 62.56 |
| F-12_2 | ST | 70 | 30 | 5 | 4 | 3.14 | 80 | 10 | 18.93 | 22.97 | 65.79 |
| F-12_3 | ST | 70 | 30 | 5 | 4 | 1.57 | 80 | 20 | 24.58 | 28.78 | 66.59 |
| F-12_4 | ST | 70 | 30 | 5 | 4 | 1.05 | 80 | 29.9 | 27.41 | 31.27 | 67.16 |
| F-13_1 | ST | 30 | 70 | 5 | 4 | 6.28 | 80 | 5 | 22.29 | 17.85 | 34.86 |
| F-13_2 | ST | 30 | 70 | 5 | 4 | 3.14 | 80 | 10 | 33.41 | 25.7 | 35.78 |
| F-13_3 | ST | 30 | 70 | 5 | 4 | 1.57 | 80 | 20 | 45.46 | 34.51 | 36.08 |
| F-13_4 | ST | 30 | 70 | 5 | 4 | 1.05 | 80 | 29.9 | 51.56 | 39.21 | 36.04 |
| F-14-1 | ST | 50 | 50 | 5 | 10 | 6.28 | 80 | 5 | 15.16 | 13.75 | 52.46 |
| F-14-2 | ST | 50 | 50 | 5 | 10 | 3.14 | 80 | 10 | 19.23 | 17.32 | 52.63 |
| F-14-3 | ST | 50 | 50 | 5 | 10 | 1.57 | 80 | 20 | 28.13 | 24.04 | 53.94 |
| F-14-4 | ST | 50 | 50 | 5 | 10 | 1.05 | 80 | 29.9 | 33.98 | 29.08 | 53.89 |
| F-15-1 | ST | 50 | 50 | 1 | 4 | 6.28 | 80 | 5 | 9.38 | 12.14 | 43.58 |
| F-15-2 | ST | 50 | 50 | 1 | 4 | 3.14 | 80 | 10 | 14.62 | 16.97 | 46.27 |
| F-15-3 | ST | 50 | 50 | 1 | 4 | 1.57 | 80 | 20 | 20.42 | 22.05 | 48.07 |
| F-15-4 | ST | 50 | 50 | 1 | 4 | 1.05 | 80 | 29.9 | 26.82 | 27.91 | 49 |
| F-22-1 | ST | 50 | 50 | 5 | 10 | 6.28 | 60 | 5 | 7.78 | 8.02 | 49.27 |
| F-22-2 | ST | 50 | 50 | 5 | 10 | 3.14 | 60 | 10 | 8.73 | 9.04 | 49.15 |
| F-22-3 | ST | 50 | 50 | 5 | 10 | 1.57 | 60 | 20 | 10.63 | 10.58 | 50.14 |
| F-22-4 | ST | 50 | 50 | 5 | 10 | 1.05 | 60 | 29.9 | 13.28 | 12.54 | 51.44 |
| F-24-1 | ST | 30 | 70 | 5 | 4 | 6.28 | 60 | 5 | 11.38 | 11.15 | 30.43 |
| F-24-2 | ST | 30 | 70 | 5 | 4 | 3.14 | 60 | 10 | 13.8 | 12.76 | 31.67 |
| F-24-3 | ST | 30 | 70 | 5 | 4 | 1.57 | 60 | 20 | 19.19 | 16.46 | 33.33 |
| F-24-4 | ST | 30 | 70 | 5 | 4 | 1.05 | 60 | 29.9 | 24.31 | 20.42 | 33.78 |
| F-25-1 | ST | 50 | 50 | 5 | 2 | 6.28 | 60 | 5 | 10.24 | 10.51 | 49.35 |
| F-25-2 | ST | 50 | 50 | 5 | 2 | 3.14 | 60 | 10 | 11.26 | 11.48 | 49.52 |
| F-25-3 | ST | 50 | 50 | 5 | 2 | 1.57 | 60 | 20 | 16.22 | 16.58 | 49.45 |
| F-25-4 | ST | 50 | 50 | 5 | 2 | 1.05 | 60 | 29.9 | 19.97 | 20.66 | 49.14 |
| F-28r1-1 | ST | 80 | 20 | 5 | 4 | 6.28 | 60 | 5 | 5 | 8.24 | 70.81 |
| F-28r1-2 | ST | 80 | 20 | 5 | 4 | 3.14 | 60 | 10 | 7.61 | 11.54 | 72.51 |
| F-28r1-3 | ST | 80 | 20 | 5 | 4 | 1.57 | 60 | 20 | 10.19 | 14.28 | 74.06 |
| F-28r1-4 | ST | 80 | 20 | 5 | 4 | 1.05 | 60 | 29.9 | 12.52 | 17.51 | 74.00 |
| F-29r1-1 | ST | 60 | 40 | 5 | 4 | 6.28 | 60 | 5 | 7.19 | 11 33 | 48.76 |
| E-29r1-2 | ST | 60 | 40 | 5 | 4 | 3 14 | 60 | 10 | 8.62 | 12.91 | 50.03 |
| F-29r1-2 | ST | 60 | 40 | 5 | 4 | 1.57 | 60 | 20 | 10.86 | 14.32 | 53.24 |
| F-29-1-4 | ST | 60 | 40 | 5 | 4 | 1.05 | 60 | 20 0 | 14.69 | 18.64 | 54 16 |
| E-30r1-1 | ST | 40 | -0- | 5 | 4 | 6.29 | 60 | 5 | 10.02 | 12.09 | 35.61 |
| E-30-1-2 | ST | 40 | 60 | 5 | 4 | 2 14 | 60 | 10 | 10.03 | 12.09 | 36.70 |
| E-20+1 2 | 51 | 40 | 60 | 5 | 4 | 1.57 | 60 | 20 | 16.11 | 16.2 | 30.79 |
| E-20-1 4 | 51 6T | 40 | 60 | 5 | 4 | 1.57 | 60 | 20 | 20.20 | 10.3 | 35.72 |
| F-30F1-4 | 51 CT | 40 | 00 | 5 | 4 | 6.39 | 60 | 29.9 E | 12.4 | 20.03 | 40.31 |
| F-31/1-1 2 | 51 | 20 | 00 | 5 | 4 | 0.28 | 60 | 10 | 15.97 | 5.45 | 24.74 |
| F-31/1-2 | 51 | 20 | 80 | 5 | 4 | 3.14 | 60 | 10 | 13'9' | 16.02 | 25.83 |
| F-31F1-3 | 51 | 20 | 80 | 5 | 4 | 1.5/ | 60 | 20 | 23.8 | 10.92 | 26.01 |
| F-51F1-4 | 51 | 20 | 80 | 5 | 4 | 1.05 | 60 | 29.9 | 29.62 | 20.3 | 20.73 |
| F-36-1 | 21 | 60 | 40 | 1 | 4 | 6.28 | 60 | 5 | 14.02 | 19.31 | 52.13 |

 Table S2-3. List of synthesized copolymers.

| | | M1 | M2 | Initiator | | Flow | Tomporature | Reaction | M1 | M2 | M1 |
|------------|--------|-------------------|-------------------|-------------------|----|-----------|---------------------|----------|------------|------------|--------|
| Sample No. | M1 | composition ratio | composition ratio | composition ratio | SM | velocity | lemperature (°C) | time | conversion | conversion | ICR |
| | | [mol%] | [mol%] | [mol%] | | [mL/min.] | 1.61 | [min] | [%] | [%] | [mol%] |
| F-36-2 | ST | 60 | 40 | 1 | 4 | 3.14 | 60 | 10 | 14.24 | 19.53 | 52.24 |
| F-36-3 | ST | 60 | 40 | 1 | 4 | 1.57 | 60 | 20 | 15.56 | 20.96 | 52.7 |
| F-36-4 | ST | 60 | 40 | 1 | 4 | 1.05 | 60 | 29.9 | 17.27 | 22.35 | 53.69 |
| F-45-1 | THFMA | 50 | 50 | 5 | 4 | 6.28 | 60 | 5 | 16.73 | 17.47 | 48.92 |
| F-45-2 | THFMA | 50 | 50 | 5 | 4 | 3.14 | 60 | 10 | 26.04 | 25.25 | 50.77 |
| F-45-3 | THFMA | 50 | 50 | 5 | 4 | 1.57 | 60 | 20 | 39.15 | 37.75 | 50.91 |
| F-45-4 | THFMA | 50 | 50 | 5 | 4 | 1.05 | 60 | 29.9 | 50.24 | 46.68 | 51.84 |
| F-46-1 | THFMA | 30 | 70 | 5 | 4 | 6.28 | 60 | 5 | 17.28 | 18.15 | 28.98 |
| F-46-2 | THEMA | 30 | 70 | 5 | 4 | 3.14 | 60 | 10 | 24.83 | 24.47 | 30.31 |
| F-46-3 | THEMA | 30 | 70 | 5 | 4 | 1.57 | 60 | 20 | 39 37 | 37.75 | 30.88 |
| F-46-4 | THEMA | 30 | 70 | 5 | 4 | 1.05 | 60 | 29.9 | 48.66 | 46.3 | 31.06 |
| E-47-1 | THEMA | 70 | 20 | 5 | 4 | 6.29 | 60 | 5 | 10.00 | 16.65 | 71.00 |
| F-47-1 | THEMA | 70 | 30 | 5 | 7 | 0.20 | 60 | 10 | 27.20 | 22.05 | 72.66 |
| F-47-2 | TUENAN | 70 | 30 | 5 | 4 | 3.14 | 60 | 10 | 27.29 | 25.90 | 72.00 |
| F-47-3 | THEMA | 70 | 30 | 5 | 4 | 1.57 | 60 | 20 | 41.21 | 36.67 | 72.39 |
| F-47-4 | THEMA | 70 | 30 | 5 | 4 | 1.05 | 60 | 29.9 | 51.81 | 46.58 | 72.19 |
| F-48-1 | THFMA | 50 | 50 | 5 | 4 | 6.28 | 80 | 5 | 37.54 | 35.29 | 51.54 |
| F-48-2 | THFMA | 50 | 50 | 5 | 4 | 3.14 | 80 | 10 | 53.5 | 50.14 | 51.62 |
| F-48-3 | THFMA | 50 | 50 | 5 | 4 | 1.57 | 80 | 20 | 66.22 | 61.93 | 51.67 |
| F-48-4 | THFMA | 50 | 50 | 5 | 4 | 1.05 | 80 | 29.9 | 70.39 | 65.58 | 51.77 |
| F-49-1 | THFMA | 50 | 50 | 1 | 4 | 6.28 | 60 | 5 | 9.45 | 9.97 | 48.69 |
| F-49-2 | THFMA | 50 | 50 | 1 | 4 | 3.14 | 60 | 10 | 14.96 | 15.69 | 48.81 |
| F-49-3 | THFMA | 50 | 50 | 1 | 4 | 1.57 | 60 | 20 | 24.15 | 22.81 | 51.42 |
| F-49-4 | THEMA | 50 | 50 | 1 | 4 | 1.05 | 60 | 29.9 | 31.94 | 29.82 | 51.72 |
| F-50-1 | THEMA | 50 | 50 | 5 | 10 | 6.28 | 60 | 5 | 13.06 | 11.88 | 52.37 |
| F-50-2 | THEMA | 50 | 50 | 5 | 10 | 3 14 | 60 | 10 | 17 15 | 15 77 | 52.08 |
| F-50-2 | THEMA | 50 | 50 | 5 | 10 | 1 57 | 60 | 20 | 25.00 | 22 41 | 52.60 |
| F-50-3 | THEMA | 50 | 50 | 5 | 10 | 1.57 | 60 | 20 0 | 23.33 | 20.1 | 52.01 |
| F-50-4 | THEMA | 50 | 50 | 5 | 10 | 6.39 | 60 | 29.9 | 33.0 | 21.26 | 52.5 |
| F-51-1 | THEMA | 50 | 50 | 5 | 2 | 6.28 | 60 | 5 | 21.76 | 21.36 | 50.46 |
| F-51-2 | THEMA | 50 | 50 | 5 | 2 | 3.14 | 60 | 10 | 32.7 | 31.29 | 51.1 |
| F-51-3 | THFMA | 50 | 50 | 5 | 2 | 1.57 | 60 | 20 | 50.14 | 47.25 | 51.48 |
| F-51-4 | THFMA | 50 | 50 | 5 | 2 | 1.05 | 60 | 29.9 | 61.82 | 58.1 | 51.55 |
| F-59-1 | THFMA | 30 | 70 | 5 | 4 | 6.28 | 80 | 5 | 34.93 | 33.07 | 31.16 |
| F-59-2 | THFMA | 30 | 70 | 5 | 4 | 3.14 | 80 | 10 | 51.32 | 48.3 | 31.29 |
| F-59-3 | THFMA | 30 | 70 | 5 | 4 | 1.57 | 80 | 20 | 62.94 | 58.76 | 31.46 |
| F-60-1 | THFMA | 70 | 30 | 5 | 4 | 6.28 | 80 | 5 | 37.89 | 33.48 | 72.53 |
| F-60-2 | THFMA | 70 | 30 | 5 | 4 | 3.14 | 80 | 10 | 54.49 | 49.48 | 71.99 |
| F-60-3 | THEMA | 70 | 30 | 5 | 4 | 1.57 | 80 | 20 | 71.93 | 66.47 | 71.63 |
| F-61-1 | THEMA | 30 | 70 | 1 | 4 | 6.28 | 60 | 5 | 10.23 | 10.53 | 29.41 |
| F-61-2 | THEMA | 30 | 70 | 1 | 4 | 3.14 | 60 | 10 | 14 67 | 14.8 | 29.82 |
| F-61-3 | THEMA | 30 | 70 | 1 | 4 | 1 57 | 60 | 20 | 24.32 | 23.54 | 30.69 |
| E-61-4 | THEMA | 30 | 70 | 1 | 4 | 1.05 | 60 | 20 0 | 21.00 | 20.54 | 21.00 |
| E-62-1 | THEMA | 70 | 20 | 1 | 4 | 6.28 | 60 | 25.5 | 11 10 | 10.24 | 71.03 |
| F-02-1 | THEMA | 70 | 30 | 1 | 4 | 0.28 | 60 | 5 | 11.19 | 10.24 | 71.84 |
| F-02-2 | TUENA | 70 | 30 | 1 | 4 | 5.14 | 60 | 10 | 14.49 | 12.83 | 72.49 |
| F-62-3 | THEMA | 70 | 30 | 1 | 4 | 1.57 | 60 | 20 | 25.11 | 21.96 | 72.74 |
| F-62-4 | THEMA | 70 | 30 | 1 | 4 | 1.05 | 60 | 29.9 | 33.18 | 29.19 | 72.62 |
| F-63-1 | THEMA | 30 | 70 | 5 | 10 | 6.28 | 60 | 5 | 11.47 | 11.64 | 29.71 |
| F-63-2 | THFMA | 30 | 70 | 5 | 10 | 3.14 | 60 | 10 | 17.53 | 16.87 | 30.8 |
| F-63-3 | THFMA | 30 | 70 | 5 | 10 | 1.57 | 60 | 20 | 26.34 | 24.95 | 31.15 |
| F-63-4 | THFMA | 30 | 70 | 5 | 10 | 1.05 | 60 | 29.9 | 33.6 | 31.21 | 31.57 |
| F-64-1 | THFMA | 70 | 30 | 5 | 10 | 6.28 | 60 | 5 | 12.99 | 8.67 | 77.76 |
| F-64-2 | THFMA | 70 | 30 | 5 | 10 | 3.14 | 60 | 10 | 18.71 | 13.89 | 75.86 |
| F-64-3 | THFMA | 70 | 30 | 5 | 10 | 1.57 | 60 | 20 | 28.09 | 22.58 | 74.38 |
| F-64-4 | THFMA | 70 | 30 | 5 | 10 | 1.05 | 60 | 29.9 | 36.19 | 30.65 | 73.37 |
| F-65-1 | THEMA | 30 | 70 | 5 | 2 | 6.28 | 60 | 5 | 21.14 | 17.46 | 34,16 |
| F-65-2 | THEMA | 30 | 70 | 5 | 2 | 3.14 | 60 | 10 | 31 56 | 28.03 | 32.55 |
| F-65-2 | THEMA | 30 | 70 | 5 | 2 | 1 57 | 60 | 20 | 48.01 | 44.76 | 31.40 |
| E-65-4 | THEMA | 30 | 70 | 5 | 2 | 1.05 | 60 | 20 0 | 50.01 | 56.22 | 31.49 |
| E.66 1 | THEMA | 30 | 20 | 5 | 2 | 6.39 | 60 | 29.9 | 21.45 | 21.22 | 70.22 |
| F-00-1 | TUCMA | 70 | 30 | 5 | 2 | 0.28 | 60 | 5 | 21.45 | 21.22 | 70.23 |
| F-66-2 | THEMA | 70 | 30 | 5 | 2 | 3.14 | 60 | 10 | 33.99 | 31.74 | /1.42 |
| F-66-3 | THEMA | 70 | 30 | 5 | 2 | 1.57 | 60 | 20 | 51.49 | 47.44 | 71.69 |
| F-66-4 | THFMA | 70 | 30 | 5 | 2 | 1.05 | 60 | 29.9 | 63.74 | 59 | 71.59 |

| Table S2-4. | List | of s | synthesized | copol | lymers. |
|-------------|------|------|-------------|-------|---------|
| | | | | | |

Representative HLPC traces (St-MMA copolymer)



Figure S2. HPLC trace for St-MMA copolymer (F-3_1).

Among the 50 (meth)acrylic and styrene monomers listed in Ref S1, the reactivity of GMA, CHMA, THFMA, ST, and PACS with MMA was considered. Herein, Figure S3 shows that CHMA is more extrapolative.



Figure S3. Using t-SNE to visualize 50 molecular structural features (RDKit: 208 features).

| 0 Methyl Methacrylate 80-62-6 1 Glycidyl Methacrylate 106-91-2 2 Styrene 100-42-5 3 Methyl (Z)-3-methoxyacrylate 5739-81-1 4 Methacrylic Acid 79-41-4 5 Ethyl Methacrylate 97-63-2 6 Butyl Methacrylate 97-86-9 7 Isobutyl Methacrylate 97-86-9 9 (3-Ethyloxetan-3-yl)methyl Methacrylate 37674-57-0 10 2-Ethylhexyl Methacrylate 3260-05-7 11 Dodecyl Methacrylate 32360-05-7 12 Stearyl Methacrylate 32360-05-7 13 Cyclohexyl Methacrylate 2495-37-6 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxyerlymethacrylate 2495-37-6 15 2-Hydroxyerlymethacrylate 2495-37-6 15 2-Hydroxyerlymethacrylate 2495-37-6 15 2-Hydroxyerlymethacrylate 249-3-34-6 16 3-Hydroxyrl-methacrylate 245-2 17 3-Hydroxyr | No. | Monomer name | CAS No. |
|---|-----|--|-------------|
| 1 Glycidyl Methacrylate 106-91-2 2 Styrene 100-42-5 3 Methyl (2)-3-methoxyacrylate 5739-81-1 4 Methacrylic Acid 79-41-4 5 Ethyl Methacrylate 97-85-3 6 Butyl Methacrylate 97-86-9 8 tert-Butyl Methacrylate Monomer 585-07-9 9 (3-Ethyloxetan-3-yl)methyl Methacrylate 37674-57-0 10 2-Ethylhoxetan-3-yl)methyl Methacrylate 32360-05-7 11 Dodecyl Methacrylate 2495-37-6 12 Stearyl Methacrylate 2495-37-6 13 Cyclohexyl Methacrylate 868-77-9 16 2-Hydroxyropyl methacrylate 2495-37-6 13 S-Dihydroxy-1-adamantyl methacrylate 115322-15-1 19 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 2 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 2 2-(Diethylamino)ethyl Methacrylate 2867-47-2 2 2-(Diethylamino)ethyl Methacrylate 2867-47-2 2 2-(Diethylamino)ethyl Methac | 0 | Methyl Methacrylate | 80-62-6 |
| 2 Styrene 100-42-5 3 Methyl (Z)-3-methoxyacrylate 5739-81-1 4 Methacrylic Acid 79-41-4 5 Ethyl Methacrylate 97-63-2 6 Butyl Methacrylate 97-63-2 7 Isobutyl Methacrylate Monomer 97-88-1 7 Isobutyl Methacrylate Monomer 585-07-9 9 (3-Ethyloxetan-3-yl)methyl Methacrylate 37674-57-0 10 2-Ethyloxetan-3-yl)methyl Methacrylate 101-43-9 11 Dodecyl Methacrylate 12360-05-7 12 Stearyl Methacrylate 101-43-9 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxytropyl methacrylate 868-77-9 16 2-Hydroxytropyl methacrylate 115372-36-6 18 3,5-Dihydroxy1-adamantyl methacrylate 115522-15-1 19 2-(Dimethylamino)ethyl Methacrylate 2857-47-2 20 2-(Dimethylamino)ethyl Methacrylate 2858-24-5 23 Tetrahydrofurfuryl Methacrylate 2628-16-2 24 2-Propenoic acid, (3-ethyl-3-ox | 1 | Glycidyl Methacrylate | 106-91-2 |
| 3 Methyl (2)-3-methoxyacrylate 5739-81-1 4 Methacrylic Acid 79-41-4 5 Ethyl Methacrylate 97-63-2 6 Butyl Methacrylate 97-86-9 8 tert-Butyl Methacrylate 37674-57-0 0 2-Ethylhexyl Methacrylate 37674-57-0 10 2-Ethylhexyl Methacrylate 32860-05-7 11 Dodecyl Methacrylate 32360-05-7 12 Stearyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 868-77-9 16 2-Hydroxyropyl methacrylate 923-26-2 17 3-Hydroxyr-1-admantyl methacrylate 2867-47-2 2 2-(Direthylamino)ethyl Methacrylate 2867-47-2 2 2-(Direthylamino)ethyl Methacrylate 2855-24-5 12 Dicyclopentanyl Methacrylate 2455-24-5 12 Dicyclopentanyl Methacrylate 2455-24-5 13 Tetrahydrofur/uryl Methacrylate 2455-24-5 14 2-Propenoic acid, (3-ethyl-3-oxetanyl) | 2 | Styrene | 100-42-5 |
| 4 Methacrylic Acid 79-41-4 5 Ethyl Methacrylate 97-63-2 6 Butyl Methacrylate 97-88-1 7 Isobutyl Methacrylate 97-86-9 8 tert-Butyl Methacrylate Monomer 585-07-9 9 (3-Ethyloxetan-3-yl)methyl Methacrylate 37674-57-0 10 2-Ethylhoxetan-3-yl)methyl Methacrylate 142-90-5 11 Dodecyl Methacrylate 101-43-9 12 Stearyl Methacrylate 868-77-9 16 2-Hydroxypthyl Methacrylate 868-77-9 16 2-Hydroxyptopyl methacrylate 868-77-9 17 3-Hydroxy-1-methacryloyloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-methacrylate 2867-47-2 19 2-(Diethylamino)ethyl Methacrylate 2867-47-2 20 2-(Diethylamino)ethyl Methacrylate 2455-24-5 21 Dicyclopentanyl Methacrylate 2455-24-5 22 Dicyclopentanyl Methacrylate 2628-16-2 23 Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 24 2- | 3 | Methyl (Z)-3-methoxyacrylate | 5739-81-1 |
| 5 Ethyl Methacrylate 97-63-2 6 Butyl Methacrylate 97-88-1 7 Isobutyl Methacrylate 97-86-9 8 tert-Butyl Methacrylate 37674-57-0 10 2-Ethylnexyl Methacrylate 688-84-6 11 Dodecyl Methacrylate 23260-05-7 12 Stearyl Methacrylate 210-43-9 13 Cyclohexyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 23260-05-7 16 2-Hydroxyethyl Methacrylate 2867-79 16 2-Hydroxyethyl Methacrylate 232-62-2 17 3-Hydroxy-1-methacryloloxyadamantane 115522-15-1 19 2-(Diemtylamino)ethyl Methacrylate 2867-47-2 20 2-(Diemtylamino)ethyl Methacrylate 2455-24-5 21 Dicyclopentanyl Methacrylate 2455-24-5 22 Dicyclopentanyl Methacrylate 2455-24-5 23 Tetrahydrofurfuryl Methacrylate 2628-16-2 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylhenyl Acetate 2628-16-2 26 Acrylamide Mon | 4 | Methacrylic Acid | 79-41-4 |
| 6 Butyl Methacrylate 97-88-1 7 Isobutyl Methacrylate Monomer 97-86-9 8 tert-Butyl Methacrylate Monomer 385-07-9 9 (3-Ethyloxetan-3-vl)methyl Methacrylate 385-07-9 10 2-Ethylhexyl Methacrylate 142-90-5 12 Stearyl Methacrylate 101-43-9 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxynopyl methacrylate 868-77-9 16 2-Hydroxynopyl methacrylate 232-26-2 17 3-Hydroxy-1-adamantyl methacrylate 115372-36-6 3 5-Dihydroxy-1-adamantyl methacrylate 105-16-8 21 Dicyclopentanyl Methacrylate 2867-47-2 22 -(Diethylamino)ethyl Methacrylate 2867-47-2 23 2-(Diethylamino)ethyl Methacrylate 2855-24-5 24 Dicyclopentanyl Methacrylate 2858-19-6 23 Tetrahydrofurfuryl Methacrylate 2828-61-2 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 | 5 | Ethyl Methacrylate | 97-63-2 |
| 7 Isobutyl Methacrylate Monomer 585-07-9 8 tert-Butyl Methacrylate Monomer 585-07-9 9 (3-Ethyloxetan-3-yl)methyl Methacrylate 37674-57-0 10 2-Ethyloxetan-3-yl)methyl Methacrylate 688-84-6 11 Dodecyl Methacrylate 142-90-5 12 Stearyl Methacrylate 101-43-9 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 868-77-9 16 2-Hydroxyethyl Methacrylate 868-77-9 16 2-Hydroxyethyl Methacrylate 232-6-2 17 3-Hydroxy-1-methacryloyloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-adamantyl methacrylate 2867-47-2 10 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 10 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 10 2-(Dimethylamino)ethyl Methacrylate 495-34-7 12 Dicyclopentanyl Methacrylate 495-81-4-1 13 Tetrahydrofurfuryl Methacrylate 495-81-4-1 14 2867-47-2 206-01 27 15 4-Vinylphonyl Acetate 2628-16-2 <td< td=""><td>6</td><td>Butyl Methacrylate</td><td>97-88-1</td></td<> | 6 | Butyl Methacrylate | 97-88-1 |
| 8 tert-Butyl Methacrylate Monomer 585-07-9 9 (3-Ethyloxetan-3-yl)methyl Methacrylate 37674-57-0 10 2-Ethylhexyl Methacrylate 688-84-6 11 Dodecyl Methacrylate 142-90-5 12 Stearyl Methacrylate 23260-05-7 13 Cyclohexyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 232-62-2 17 3-Hydroxy-1-methacryloloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-adamantyl methacrylate 2867-47-2 19 2-(Dimethylamino)ethyl Methacrylate 105-16-8 21 Dicyclopentanyl Methacrylate 2455-24-5 22 2-(Diethylamino)ethyl Methacrylate 2455-24-5 23 Tetrahydrofurfuryl Methacrylate 2628-16-2 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide-2-methylpropanesulfonic Acid 1910-7 29 Methyl Acrylate 39841-48-6 <td>7</td> <td>Isobutyl Methacrylate</td> <td>97-86-9</td> | 7 | Isobutyl Methacrylate | 97-86-9 |
| 9 (3-Ethyloxetan-3-yl)methyl Methacrylate 37674-57-0 10 2-Ethylhexyl Methacrylate 688-84-6 11 Dodecyl Methacrylate 32360-05-7 12 Stearyl Methacrylate 101-43-9 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 868-77-9 16 2-Hydroxy-1-methacrylate 923-26-2 17 3-Hydroxy-1-adamantyl methacrylate 115372-36-6 18 3,5-Dihydroxy-1-adamantyl methacrylate 105-16-8 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 20 2-(Diethylamino)ethyl Methacrylate 48586-19-6 21 Dicyclopentanyl Methacrylate 2455-24-5 22 Dicyclopentanyl Methacrylate 2628-16-2 23 Tetrahydrofurfuryl Methacrylate 2628-16-2 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylianide Monomer 79-06-01 27 2-Acrylamide Monomer 79-06-01 21 S | 8 | tert-Butyl Methacrylate Monomer | 585-07-9 |
| 10 2-Ethylhexyl Methacrylate 688-84-6 11 Dodecyl Methacrylate 142-90-5 12 Stearyl Methacrylate 32360-05-7 13 Cyclohexyl Methacrylate 2495-37-6 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 868-77-9 16 2-Hydroxy-1-methacryloyloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-adamantyl methacrylate 2867-47-2 19 2-(Diethylamino)ethyl Methacrylate 2867-47-2 2-(Diethylamino)ethyl Methacrylate 105-16-8 21 Dicyclopentanyl Methacrylate 2455-24-5 22 Dicyclopentenyloxyethyl methacrylate 2455-24-5 23 Tetrahydrofurfuryl Methacrylate 2458-62-6 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 51952-49-9 15 lsobornyl Acrylate | 9 | (3-Ethyloxetan-3-yl)methyl Methacrylate | 37674-57-0 |
| 11 Dodecyl Methacrylate 142-90-5 12 Stearyl Methacrylate 101-43-9 13 Cyclohexyl Methacrylate 101-43-9 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 868-77-9 16 2-Hydroxyptnyl methacrylate 923-26-2 17 3-Hydroxy-1-methacryloyloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-adamantyl methacrylate 105-16-8 2-(Diethylamino)ethyl Methacrylate 2867-47-2 22-(Diethylamino)ethyl Methacrylate 105-16-8 10 Dicyclopentanyl Methacrylate 2455-24-5 22 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 51852-49-9 31 Isobornyl Acrylate 51852-49-9 32 Isobornyl Acrylate 51852-49-9 33 Isobornyl Acrylate 51852-49-9 | 10 | 2-Ethylhexyl Methacrylate | 688-84-6 |
| 12 Stearyl Methacrylate 32360-05-7 13 Cyclohexyl Methacrylate 101-43-9 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxyethyl Methacrylate 868-77-9 16 2-Hydroxypopyl methacrylate 923-26-2 17 3-Hydroxy-1-methacryloyloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-adamatyl methacrylate 105-16-8 20 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 20 2-(Dipethylamino)ethyl Methacrylate 05-16-8 21 Dicyclopentanyl Methacrylate 68586-19-6 23 Tetrahydrofurfuryl Methacrylate 2455-24-5 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 2499-59-4 35 1-Acryloploxy-3-hydroxyadamantane 216581-76-9 | 11 | Dodecyl Methacrylate | 142-90-5 |
| 13 Cyclohexyl Methacrylate 101-43-9 14 Benzyl Methacrylate 2495-37-6 15 2-Hydroxypropyl methacrylate 868-77-9 16 2-Hydroxypropyl methacrylate 923-26-2 17 3-Hydroxy-1-methacryloyloxyadamantane 115572-15-1 19 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 20 2-(Diethylamino)ethyl Methacrylate 34759-34-7 21 Dicyclopentanyl Methacrylate 68586-19-6 21 Tetrahydrofurfuryl Methacrylate 2455-24-5 22 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 93841-48-6 31 Isootradecyl acrylate 93841-48-6 32 Isootradecyl acrylate 106-63-8 34 n-Octyl Acrylate 106-63-8 35 Isobotryl Acrylate 106-63-8 36 Isoburyl Acrylate 2499-59-4 37 1-Acrylonyloxy-3-hydro | 12 | Stearyl Methacrylate | 32360-05-7 |
| Henzyl Methacrylate 2495-37-6 2-Hydroxyethyl Methacrylate 868-77-9 2-Hydroxy-1-methacrylate 923-26-2 3-Hydroxy-1-methacryloploxyadamantane 115372-36-6 3,5-Dihydroxy-1-adamantyl methacrylate 115522-51 9 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 2 2-(Diethylamino)ethyl Methacrylate 34759-34-7 2 Dicyclopentanyl Methacrylate 2455-24-5 2 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 2 2-Acrylamide Monomer 79-06-01 2 2-Acrylamide Monomer 79-06-01 2 2-Acrylamide-2-methylpropanesulfonic Acid 15214-89-8 3 Isooctadecyl acrylate 9841-48-6 3 Isoottalecyl acrylate 93841-48-6 3 Isobutyl Acrylate 51952-49-9 3 Isobutyl Acryla | 13 | Cyclohexyl Methacrylate | 101-43-9 |
| 15 2-Hydroxyethyl Methacrylate 868-77-9 16 2-Hydroxypropyl methacrylate 923-26-2 17 3-Hydroxy-1-methacryloyloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-adamantyl methacrylate 115522-15-1 19 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 20 2-(Diethylamino)ethyl Methacrylate 34759-34-7 20 Dicyclopentanyl Methacrylate 2455-24-5 21 Dicyclopentenyloxyethyl methacrylate 2628-16-2 2-Acrylamido-Z-methylpropanesulfonic Acid 15214-89-8 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 3 Isooctadecyl acrylate 96-33-3 3 Isooctadecyl acrylate 106-63-8 3 n-Octyl Acrylate 106-63-8 3 n-Octyl Acrylate 2499-59-4 3 1-Acryloyloxy-3- | 14 | Benzyl Methacrylate | 2495-37-6 |
| 16 2-Hydroxypropyl methacrylate 923-26-2 17 3-Hydroxy-1-methacryloyloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-adamantyl methacrylate 115522-15-1 19 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 20 2-(Diethylamino)ethyl Methacrylate 34759-34-7 20 Dicyclopentanyl Methacrylate 3455-24-5 21 Dicyclopentenyloxyethyl methacrylate 2455-24-5 22 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 31952-49-9 31 Isobutyl Acrylate 588-33-5 33 Isobornyl Acrylate 2499-59-4 31 I-Acryloyloxy-3-hydroxyadamantane 216581-76-9 32 Isobutyl Acrylate 2478-10-6 33 Isobutyl Acrylate 26273-46-3 34 | 15 | 2-Hydroxyethyl Methacrylate | 868-77-9 |
| 17 3-Hydroxy-1-methacryloyloxyadamantane 115372-36-6 18 3,5-Dihydroxy-1-adamantyl methacrylate 115522-15-1 19 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 20 2-(Diethylamino)ethyl Methacrylate 105-16-8 21 Dicyclopentanyl Methacrylate 34759-34-7 22 Dicyclopentanyl Methacrylate 2455-24-5 23 Tetrahydrofurfuryl Methacrylate 2455-24-5 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isoocadecyl acrylate 93841-48-6 31 Isoonyl Acrylate 1056-176-9 34 n-Octyl Acrylate 2499-59-4 35 Isobornyl Acrylate 2049-59-4 36 n-Octyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy-3-hydroxyadamantane 216581-76-9 34 n- | 16 | 2-Hydroxypropyl methacrylate | 923-26-2 |
| 3 3,5-Dihydroxy-1-adamantyl methacrylate 115522-15-1 19 2-(Dimethylamino)ethyl Methacrylate 2867-47-2 20 2-(Diethylamino)ethyl Methacrylate 105-16-8 21 Dicyclopentanyl Methacrylate 34759-34-7 22 Dicyclopentenyloxyethyl methacrylate 68586-19-6 23 Tetrahydrofurfuryl Methacrylate 2455-24-5 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 106-63-8 33 Isootadecyl acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 34 n-Octyl Acrylate 2478-10-6 37 2-[2- | 17 | 3-Hvdroxy-1-methacryloyloxyadamantane | 115372-36-6 |
| 2-{Dimethylamino)ethyl Methacrylate 2867-47-2 2-{Dicyclopentanyl Methacrylate 105-16-8 1 Dicyclopentanyl Methacrylate 34759-34-7 2 Dicyclopentenyloxyethyl methacrylate 68586-19-6 3 Tetrahydrofurfuryl Methacrylate 2455-24-5 2 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 2 4-Vinylphenyl Acetate 2628-16-2 2 Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 2 Acrylic Acid 79-10-7 2 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 51952-49-9 2 Isoonryl Acrylate 106-63-8 31 Isoburyl Acrylate 106-63-8 32 Isoburyl Acrylate 2499-59-4 33 Isoburyl Acrylate 2498-59-4 34 n-Octyl Acrylate 2478-10-6 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 86273-46-3 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 32002-24-7 | 18 | 3.5-Dihydroxy-1-adamantyl methacrylate | 115522-15-1 |
| 2-{Diethylamino)ethyl Methacrylate 105-16-8 21 Dicyclopentanyl Methacrylate 34759-34-7 22 Dicyclopentanyl Methacrylate 68586-19-6 23 Tetrahydrofurfuryl Methacrylate 2455-24-5 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 86273-46-3 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 166-33-9 39 Dicyclopentenyloxyethyl acrylate 5983-31-5 40 2-[/2-(Vinyloxy)ethoxy]ethyl acrylate< | 19 | 2-(Dimethylamino)ethyl Methacrylate | 2867-47-2 |
| 21Dicyclopentanyl Methacrylate34759-34-721Dicyclopentenyloxyethyl methacrylate68586-19-623Tetrahydrofurfuryl Methacrylate2455-24-5242-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester41988-14-1254-Vinylphenyl Acetate2628-16-226Acrylamide Monomer79-06-01272-Acrylamido-2-methylpropanesulfonic Acid15214-89-828Acrylic Acid79-10-729Methyl Acrylate96-33-330Isooctadecyl acrylate93841-48-631Isononyl Acrylate51952-49-932Isobornyl Acrylate51952-49-933Isobutyl Acrylate216581-76-934n-Octyl Acrylate216581-76-9351-Acryloyloxy-3-hydroxyadamantane216581-76-9364-Hydroxybutyl Acrylate2478-10-6372-[2-(Vinyloxy)ethoxy]ethyl acrylate86273-46-338tert-Butyl acrylate3121-61-739Dicyclopentenyloxyethyl acrylate3121-61-740Dodcyl acrylate32002-24-7311,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate2399-48-6462-Hydroxypthyl acrylate2399-48-6462-Hydroxypthyl acrylate399-61-1484-Hydroxybutyl acrylate999-61-1 | 20 | 2-(Diethylamino)ethyl Methacrylate | 105-16-8 |
| 22 Dicyclopentenyloxyethyl methacrylate 68586-19-6 23 Tetrahydrofurfuryl Methacrylate 2455-24-5 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 51952-49-9 33 Isobornyl Acrylate 2499-59-4 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 32002-24-7 38 tert-Butyl acrylate 32002-24-7 39 Dicyclopentenyloxyethyl acrylate< | 21 | Dicyclopentanyl Methacrylate | 34759-34-7 |
| 23 Tetrahydrofurfuryl Methacrylate 2455-24-5 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 51952-49-9 33 Isoburyl Acrylate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 32002-24-7 38 tert-Butyl acrylate 32002-24-7 39 Dicyclohexanedimethanol monoacrylate 23117-36-4 44 Stearyl acrylate 481 | 22 | Dicyclopentenyloxyethyl methacrylate | 68586-19-6 |
| 24 2-Propenoic acid, (3-ethyl-3-oxetanyl)methyl ester 41988-14-1 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 5888-33-5 33 Isobornyl Acrylate 2499-59-4 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-[Vinyloxy]ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 3121-61-7 38 tert-Butyl acrylate 32002-24-7 39 Dicyclohexanedimethanol monoacrylate 23117-36-4 34 Stearyl acrylate 2399-48-6 36 2-Hydroxyethyl acrylate 3117-36-4 </td <td>23</td> <td>Tetrahydrofurfuryl Methacrylate</td> <td>2455-24-5</td> | 23 | Tetrahydrofurfuryl Methacrylate | 2455-24-5 |
| 25 4-Vinylphenyl Acetate 2628-16-2 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 5888-33-5 33 Isobutyl Acrylate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-[(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 3121-61-7 38 tert-Butyl acrylate 32002-24-7 31 1,4-Cyclohexanedimethanol monoacrylate 23117-36-4 34 Stearyl acrylate 2399-48-6 36 2-Hydroxyethyl acrylate 2399-48-6 36 2-Hydroxyethyl acrylate 3117-36-4 | 24 | 2-Propenoic acid. (3-ethyl-3-oxetanyl)methyl ester | 41988-14-1 |
| 26 Acrylamide Monomer 79-06-01 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 5888-33-5 33 Isobutyl Acrylate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 86273-46-3 38 tert-Butyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 65983-31-5 30 2-Methoxyethyl acrylate 32002-24-7 31 1,4-Cyclohexanedimethanol monoacrylate 23117-36-4 34 Stearyl acrylate 2399-48-6 36 2-Hydroxyethyl acrylate 818-61-1 37 2-Lydroxyethyl acrylate 818-61-1 38 Tetrahydrofurfuryl acrylate 818-61-1 39< | 25 | 4-Vinvlphenvl Acetate | 2628-16-2 |
| 27 2-Acrylamido-2-methylpropanesulfonic Acid 15214-89-8 28 Acrylic Acid 79-10-7 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 5888-33-5 33 Isobutyl Acrylate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 5983-31-5 40 2-Methoxyethyl acrylate 3121-61-7 41 Dodecyl acrylate 3121-61-7 42 Ethyl 3,3-diethoxyacrylate 32002-24-7 43 1,4-Cyclohexanedimethanol monoacrylate 23117-36-4 44 Stearyl acrylate 4813-57-4 45 Tetrahydrofurfuryl acrylate 318-61-1 47 2-hydroxyethyl acrylate 818-61-1 | 26 | Acrylamide Monomer | 79-06-01 |
| 28Acrylic Acid79-10-729Methyl Acrylate96-33-330Isooctadecyl acrylate93841-48-631Isononyl Acrylate51952-49-932Isobornyl Acrylate5888-33-533Isobutyl Acrylate106-63-834n-Octyl Acrylate2499-59-4351-Acryloyloxy-3-hydroxyadamantane216581-76-9364-Hydroxybutyl Acrylate2478-10-6372-[2-(Vinyloxy)ethoxy]ethyl acrylate86273-46-338tert-Butyl acrylate1663-39-439Dicyclopentenyloxyethyl acrylate3121-61-741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 27 | 2-Acrylamido-2-methylpropanesulfonic Acid | 15214-89-8 |
| 29 Methyl Acrylate 96-33-3 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 5888-33-5 33 Isobutyl Acrylate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 65983-31-5 40 2-Methoxyethyl acrylate 3121-61-7 41 Dodecyl acrylate 3121-61-7 42 Ethyl 3,3-diethoxyacrylate 32002-24-7 43 1,4-Cyclohexanedimethanol monoacrylate 23117-36-4 44 Stearyl acrylate 2399-48-6 45 Tetrahydrofurfuryl acrylate 818-61-1 47 2-hydroxyethyl acrylate 818-61-1 47 2-hydroxypropyl acrylate 999-61-1 48 4-Hydroxybutyl acrylate glycidyl ether 119692-59-0 | 28 | Acrylic Acid | 79-10-7 |
| 30 Isooctadecyl acrylate 93841-48-6 31 Isononyl Acrylate 51952-49-9 32 Isobornyl Acrylate 5888-33-5 33 Isobutyl Acrylate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 65983-31-5 40 2-Methoxyethyl acrylate 3121-61-7 41 Dodecyl acrylate 2156-97-0 42 Ethyl 3,3-diethoxyacrylate 32002-24-7 43 1,4-Cyclohexanedimethanol monoacrylate 23117-36-4 44 Stearyl acrylate 4813-57-4 45 Tetrahydrofurfuryl acrylate 2399-48-6 46 2-Hydroxyethyl acrylate 818-61-1 47 2-hydroxypropyl acrylate 999-61-1 48 4-Hydroxybutyl acrylate glycidyl ether 119692-59-0 | 29 | Methyl Acrylate | 96-33-3 |
| 31 Isoonnyl Acrylate 51952-49-9 32 Isobornyl Acrylate 5888-33-5 33 Isobutyl Acrylate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 65983-31-5 40 2-Methoxyethyl acrylate 3121-61-7 41 Dodecyl acrylate 2156-97-0 42 Ethyl 3,3-diethoxyacrylate 32002-24-7 43 1,4-Cyclohexanedimethanol monoacrylate 23117-36-4 44 Stearyl acrylate 4813-57-4 45 Tetrahydrofurfuryl acrylate 2399-48-6 46 2-Hydroxyethyl acrylate 818-61-1 47 2-hydroxyptopyl acrylate 999-61-1 48 4-Hydroxybutyl acrylate glycidyl ether 119692-59-0 | 30 | Isooctadecyl acrylate | 93841-48-6 |
| 32Isobicity Patrix312 Size 15 532Isobornyl Acrylate5888-33-533Isobutyl Acrylate106-63-834n-Octyl Acrylate2499-59-4351-Acryloyloxy-3-hydroxyadamantane216581-76-9364-Hydroxybutyl Acrylate2478-10-6372-[2-(Vinyloxy)ethoxy]ethyl acrylate86273-46-338tert-Butyl acrylate1663-39-439Dicyclopentenyloxyethyl acrylate65983-31-5402-Methoxyethyl acrylate3121-61-741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate2399-48-645Tetrahydrofurfuryl acrylate818-61-1472-hydroxyethyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 31 | Isononyl Acrylate | 51952-49-9 |
| 33 Isobotnynkerytate 106-63-8 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 65983-31-5 40 2-Methoxyethyl acrylate 3121-61-7 41 Dodecyl acrylate 2156-97-0 42 Ethyl 3,3-diethoxyacrylate 32002-24-7 43 1,4-Cyclohexanedimethanol monoacrylate 23117-36-4 44 Stearyl acrylate 2399-48-6 45 Tetrahydrofurfuryl acrylate 2399-48-6 46 2-Hydroxyethyl acrylate 999-61-1 47 2-hydroxyptopyl acrylate 999-61-1 48 4-Hydroxybutyl acrylate glycidyl ether 119692-59-0 | 32 | Isobornyl Acrylate | 5888-33-5 |
| 34 n-Octyl Acrylate 2499-59-4 35 1-Acryloyloxy-3-hydroxyadamantane 216581-76-9 36 4-Hydroxybutyl Acrylate 2478-10-6 37 2-[2-(Vinyloxy)ethoxy]ethyl acrylate 86273-46-3 38 tert-Butyl acrylate 1663-39-4 39 Dicyclopentenyloxyethyl acrylate 65983-31-5 40 2-Methoxyethyl acrylate 3121-61-7 41 Dodecyl acrylate 2156-97-0 42 Ethyl 3,3-diethoxyacrylate 32002-24-7 43 1,4-Cyclohexanedimethanol monoacrylate 23117-36-4 44 Stearyl acrylate 2399-48-6 46 2-Hydroxyethyl acrylate 818-61-1 47 2-hydroxyptopyl acrylate glycidyl ether 999-61-1 | 33 | Isobutyl Acrylate | 106-63-8 |
| 351-Acryloyloxy-3-hydroxyadamantane216581-76-9364-Hydroxybutyl Acrylate2478-10-6372-[2-(Vinyloxy)ethoxy]ethyl acrylate86273-46-338tert-Butyl acrylate1663-39-439Dicyclopentenyloxyethyl acrylate65983-31-5402-Methoxyethyl acrylate3121-61-741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 34 | n-Octyl Acrylate | 2499-59-4 |
| 364-Hydroxybutyl Acrylate2478-10-6372-[2-(Vinyloxy)ethoxy]ethyl acrylate86273-46-338tert-Butyl acrylate1663-39-439Dicyclopentenyloxyethyl acrylate65983-31-5402-Methoxyethyl acrylate3121-61-741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate2399-48-645Tetrahydrofurfuryl acrylate818-61-1472-hydroxyethyl acrylate glycidyl ether119692-59-0 | 35 | 1-Acrylovlovy-3-bydroxyadamantane | 216581-76-9 |
| 372-[2-(Vinyloxy)ethoxy]ethyl acrylate86273-46-338tert-Butyl acrylate1663-39-439Dicyclopentenyloxyethyl acrylate65983-31-5402-Methoxyethyl acrylate3121-61-741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate4813-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate glycidyl ether119692-59-0 | 36 | 4-Hydroxybutyl Acrylate | 2478-10-6 |
| 372 [2 (Viriyloxy)chloxy]chlyraci ylate3027 5 40 538tert-Butyl acrylate1663-39-439Dicyclopentenyloxyethyl acrylate65983-31-5402-Methoxyethyl acrylate3121-61-741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate4813-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate glycidyl ether999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 37 | 2-[2-(Vinyloxy)ethoxy]ethyl acrylate | 86273-46-3 |
| 39Dicyclopentenyloxyethyl acrylate1000 30 439Dicyclopentenyloxyethyl acrylate65983-31-5402-Methoxyethyl acrylate3121-61-741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate4813-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 38 | tert-Butyl acrylate | 1663-39-4 |
| 35Dicyclopentenyloxyetnyl acrylate355355402-Methoxyetnyl acrylate3121-61-741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate4813-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 30 | Dicyclopentenyloxyethyl acrylate | 65983-31-5 |
| 402 Michaely activities5121 01 741Dodecyl acrylate2156-97-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate4813-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 40 | 2-Methoxyethyl acrylate | 3121-61-7 |
| 41Dodecyl act ylate2150-37-042Ethyl 3,3-diethoxyacrylate32002-24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate4813-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 40 | Dodecyl acrylate | 2156-97-0 |
| 42Ethyl 5,5 dictiloxydd yidde52002 24-7431,4-Cyclohexanedimethanol monoacrylate23117-36-444Stearyl acrylate4813-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 42 | Ethyl 3 3-diethovyacrylate | 32002-24-7 |
| 431,4-cyclohexalteumethanormonoaciyate25117-30-444Stearyl acrylate4813-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 42 | 1 4-Ovelobevanedimethanol monoacrylate | 23117-36-4 |
| 44Stearly acrylate4015-57-445Tetrahydrofurfuryl acrylate2399-48-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 43 | Steary acrylate | 4813-57-4 |
| 462-Hydroxyethyl acrylate2355-46-6462-Hydroxyethyl acrylate818-61-1472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 44 | Tetrahydrofurfuryl acrylate | 2399-48-6 |
| 472-hydroxypropyl acrylate999-61-1484-Hydroxybutyl acrylate glycidyl ether119692-59-0 | 45 | 2-Hydroxyethyl acrylate | 818-61-1 |
| 484-Hydroxybutyl acrylate glycidyl ether555-01-1119692-59-0 | 40 | 2-hydroxypronyl acrylate | 999-61-1 |
| 40 4 Hydroxybach der hate Bikeraki etter 112025-22-0 | 49 | 4-Hydroxybutyl acrylate glycidyl ether | 119692-59-0 |
| 49 2-Phenoxyethyl acrylate 48145-04-6 | 49 | 2-Phenoxyethyl acrylate | 48145-04-6 |

Table S3. List of 50 (meth)acrylic and styrene monomers in Ref S1.

Examination 1 (Search for interpolated regions using double cross validation)



Figure S4. Plots of actual y vs. estimated y for each objective variable in v-SVR in interpolated region.



Figure S5. Plots of actual y vs. estimated y for each objective variable in RF in interpolated region.



Figure S6. Plots of actual y vs. estimated y for each objective variable in PLS in interpolated region.

| Mada | , Fea | ture | M1_ | conv. | M2_ | conv. | M1_ | _ICR | C_M1_ICR | |
|-------|--------------|------|----------------|-------|----------------|-------|----------------|------|----------------|------|
| Mode | se se | ts | R ² | MAE | R ² | MAE | R ² | MAE | R ² | MAE |
| | | - | 0.42 | 11.15 | 0.57 | 8.05 | 0.82 | 4.25 | 0.80 | 4.49 |
| | | В | 0.99 | 1.43 | 0.98 | 1.42 | 0.99 | 0.85 | 0.98 | 1.04 |
| v-3vr | , , , | с | 0.99 | 1.48 | 0.98 | 1.53 | 0.99 | 0.76 | 0.99 | 1.00 |
| | | D | 0.99 | 1.42 | 0.98 | 1.40 | 0.99 | 0.82 | 0.99 | 1.05 |
| | | - | 0.12 | 13.46 | 0.32 | 9.80 | 0.79 | 4.55 | 0.78 | 4.78 |
| PE | • | В | 0.95 | 2.57 | 0.94 | 2.40 | 0.98 | 1.39 | 0.96 | 1.91 |
| Kr | ~ | с | 0.96 | 2.48 | 0.95 | 2.27 | 0.98 | 1.40 | 0.96 | 1.90 |
| | | D | 0.96 | 2.49 | 0.95 | 2.27 | 0.98 | 1.39 | 0.96 | 1.92 |
| | | - | 0.49 | 10.48 | 0.57 | 7.75 | 0.87 | 3.66 | 0.87 | 3.73 |
| DIC | | В | 0.91 | 4.05 | 0.90 | 3.41 | 0.94 | 2.64 | 0.95 | 2.28 |
| PLS | A | с | 0.91 | 4.05 | 0.90 | 3.40 | 0.94 | 2.65 | 0.95 | 2.30 |
| | | D | 0.91 | 4.06 | 0.90 | 3.41 | 0.94 | 2.65 | 0.95 | 2.28 |

Table S4. Calculated R^2 and MAE values for each model in interpolated region.



Figure S7. Plots of actual y vs. estimated y for each model using all objective variables (A + B + C + D) in interpolated region.

Table S5. Calculated R^2 and MAE values for each model using all objective variables (A + B + C + D) in interpolated region.

| Model | Feature sets | M1_conv. | | M2_conv. | | M1_ICR | | C_M1_ICR | |
|-------|-----------------|----------------|------|----------------|------|----------------|------|----------------|------|
| | | R ² | MAE |
| v-SVR | | 0.99 | 1.51 | 0.98 | 1.63 | 0.99 | 0.96 | 0.99 | 1.03 |
| RF | A + B + C + D | 0.95 | 2.49 | 0.95 | 2.27 | 0.98 | 1.40 | 0.93 | 1.90 |
| PLS | | 0.91 | 4.05 | 0.90 | 3.40 | 0.94 | 2.64 | 0.95 | 2.29 |

Examination 2 (Search for extrapolated regions using molecular extrapolation validation)



Figure S8. Plots of actual y vs. estimated y for each objective variable in v-SVR in extrapolated region.



Figure S9. Plots of actual y vs. estimated y for each objective variable in RF in extrapolated region.



Figure S10. Plots of actual y vs. estimated y for each objective variable in PLS in extrapolated region.

| | Madal | Feat | ture | M1_ | conv. | M2_ | M2_conv. | | M1_ICR | | C_M1_ICR | |
|--|-------|------|------|----------------|-------|----------------|----------|----------------|--------|----------------|----------|--|
| | woder | se | ts | R ² | MAE | R ² | MAE | R ² | MAE | R ² | MAE | |
| | | | - | -0.11 | 15.15 | 0.17 | 10.61 | 0.65 | 6.07 | 0.71 | 5.42 | |
| | v-SVR | | В | 0.17 | 13.43 | 0.34 | 9.75 | 0.74 | 5.16 | 0.77 | 4.80 | |
| | | A | с | -13.3 | 60.69 | -14.9 | 51.54 | -2.33 | 21.60 | 0.85 | 3.96 | |
| | | | D | -7.18 | 44.82 | -4.13 | 29.28 | 0.01 | 10.17 | 0.79 | 4.91 | |
| | | | - | -0.03 | 14.63 | 0.21 | 10.46 | 0.73 | 5.26 | 0.74 | 5.20 | |
| | DE | | В | 0.04 | 13.72 | 0.23 | 10.08 | 0.73 | 5.31 | 0.81 | 4.53 | |
| | ĸr | ~ | с | 0.66 | 8.17 | 0.82 | 4.71 | 0.76 | 5.01 | 0.79 | 5.05 | |
| | | | D | 0.84 | 5.46 | 0.84 | 4.26 | 0.81 | 3.97 | 0.88 | 3.46 | |
| | | | - | 0.10 | 13.81 | 0.29 | 9.89 | 0.79 | 4.78 | 0.79 | 4.80 | |
| | PLS | | В | 0.17 | 13.41 | 0.33 | 9.69 | 0.80 | 4.62 | 0.79 | 4.66 | |
| | | A | с | 0.42 | 10.34 | 0.49 | 7.26 | 0.42 | 8.53 | 0.06 | 10.42 | |
| | | | D | 0.81 | 5.64 | 0.76 | 5.53 | 0.89 | 3.53 | 0.90 | 3.20 | |

Table S6. Calculated R^2 and MAE values for each model in extrapolated region.



Figure S11. Plots of actual y vs. estimated y for each model using all objective variables (A + B + C + D) in extrapolated region.

Table S7. Calculated R^2 and MAE values for each model using all objective variables (A + B + C + D) in extrapolated region.

| Model | Feature sets | M1_conv. | | M2_conv. | | M1_ICR | | C_M1_ICR | |
|-------|-----------------|----------------|-------|----------------|-------|----------------|-------|----------------|-------|
| | | R ² | MAE |
| v-SVR | | -16.55 | 69.80 | -23.38 | 70.09 | -5.71 | 32.54 | 0.86 | 3.94 |
| RF | A + B + C + D | 0.77 | 6.58 | 0.85 | 4.48 | 0.79 | 4.48 | 0.85 | 4.16 |
| PLS | | -2.21 | 24.86 | -0.75 | 13.18 | 0.81 | 4.92 | -6.92 | 29.21 |





Model Architecture: contains 256 neurons in the first hidden layer, 64 neurons in the second hidden layer, and 16 neurons in the third hidden layer with 200 iterations (max).

Recursive feature elimination (RFE)



Figure S13. Calculated R^2 for each feature.



Figure S14. Calculated R^2 for each feature.



Figure S15. Calculated R^2 for each feature



Figure S16. Calculated R^2 for each feature.



Figure S17. Calculated R^2 for each feature.

Explanatory variables

Table S8. List of parameters calculated by DFT method.

| Monomer | GMA | St | CHMA | THFMA | PACS |
|--------------------------|--------------|--------------|--------------|--------------|--------------|
| DE_M00_TS_theta60 | -0.003015671 | 0.000453725 | -0.009129773 | -0.005293026 | 0.000555753 |
| Real_theta_M00_theta60 | 70.23564207 | 56.15353136 | 72.17562408 | 51.25233077 | 54.50603002 |
| DE_M00_TS_theta180 | -0.005512013 | -0.002199144 | -0.005819303 | -0.005126284 | -0.002725805 |
| Real_theta_M00_theta180 | 173.2057863 | 178.3675235 | 189.8003006 | 204.3511202 | 177.7359104 |
| DE_M00_TS_theta300 | -0.004917453 | -0.000958591 | -0.007041858 | -0.004227422 | -0.000846792 |
| Real_theta_M00_theta300 | 305.4991493 | 308.446018 | 324.7409414 | 308.213834 | 308.1126372 |
| DE_00M_TS_theta60 | -0.004686666 | -0.002790514 | -0.005954314 | -0.003727761 | -0.002996113 |
| Real_theta_00M_theta60 | 74.6871307 | 60.12718366 | 41.13362743 | 51.46198515 | 59.7782855 |
| DE_00M_TS_theta180 | -0.007332908 | -0.004174637 | -0.005377352 | -0.005700981 | -0.004324217 |
| Real_theta_00M_theta180 | 156.2884273 | 208.3674353 | 182.8188912 | 171.7563309 | 208.3641054 |
| DE_00M_TS_theta300 | -0.006948181 | -0.002935987 | -0.009390278 | -0.006105677 | -0.003096496 |
| Real_theta_00M_theta300 | 308.3303933 | 291.6177967 | 289.5383495 | 311.6937046 | 290.1038477 |
| DE_MM_TS_theta60 | -0.004612167 | 0.001509026 | -0.007397412 | -0.006006008 | 0.001635736 |
| Real_theta_MM_theta60 | 79.76837866 | 57.2356454 | 80.5529613 | 39.68781394 | 62.05845262 |
| DE_MM_TS_theta180 | -0.008853995 | -0.000525124 | -0.011625977 | -0.007061631 | -0.008330683 |
| Real_theta_MM_theta180 | 164.6841998 | 176.5712775 | 174.9017246 | 180.1318468 | 173.2780436 |
| DE_MM_TS_theta300 | -0.01027043 | 0.001540489 | -0.006675079 | -0.004991215 | 0.001424407 |
| Real_theta_MM_theta300 | 258.2276633 | 291.4854858 | 271.0157861 | 284.4189013 | 292.6451545 |
| E_M_Rad_SOMO | -0.22108451 | -0.178146229 | -0.21339748 | -0.216737169 | -0.175182529 |
| E_M_Rad_LUMO | 0.035405137 | -0.009196424 | 0.040121638 | 0.038501022 | -0.0150155 |
| E_M_Mon_HOMO | -0.275241871 | -0.230830579 | -0.271586573 | -0.253740925 | -0.225539183 |
| E_M_Mon_LUMO | -0.052799579 | -0.042225132 | -0.044570869 | -0.048291459 | -0.045912177 |
| DE_M_decomposition_head | 0.062134228 | 0.063061185 | 0.061804369 | 0.061256585 | 0.063245575 |
| DE_M_decomposition_tail | 0.038719349 | 0.038749391 | 0.039385516 | 0.037937566 | 0.038492683 |
| E_00_Rad_SOMO | -0.214231645 | -0.214231645 | -0.214231645 | -0.214231645 | -0.214231645 |
| E_00_Rad_LUMO | 0.044572116 | 0.044572116 | 0.044572116 | 0.044572116 | 0.044572116 |
| E_00_Mon_HOMO | -0.273330301 | -0.273330301 | -0.273330301 | -0.273330301 | -0.273330301 |
| E_00_Mon_LUMO | -0.045363064 | -0.045363064 | -0.045363064 | -0.045363064 | -0.045363064 |
| DE_00_decomposition_head | 0.061518379 | 0.061518379 | 0.061518379 | 0.061518379 | 0.061518379 |
| DE_00_decomposition_tail | 0.0385338 | 0.0385338 | 0.0385338 | 0.0385338 | 0.0385338 |
| DE_M00_SHgap | 0.052245791 | 0.095184072 | 0.059932821 | 0.056593132 | 0.098147772 |
| DE_M00_SLgap | 0.175721446 | 0.132783165 | 0.168034416 | 0.171374105 | 0.129819465 |
| DE_00M_SHgap | 0.061010226 | 0.016598934 | 0.057354928 | 0.03950928 | 0.011307538 |
| DE_00M_SLgap | 0.161432066 | 0.172006513 | 0.169660776 | 0.165940187 | 0.168319468 |
| DE_MM_SHgap | 0.054157361 | 0.05268435 | 0.058189093 | 0.037003756 | 0.050356654 |
| DE_MM_SLgap | 0.168284931 | 0.135921097 | 0.168826611 | 0.168445711 | 0.129270352 |

References

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