
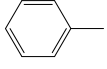
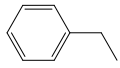

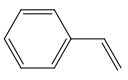
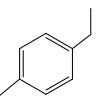
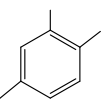
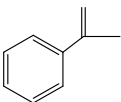
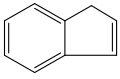



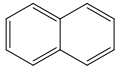
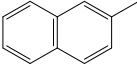
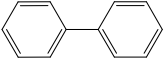
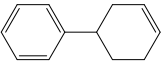
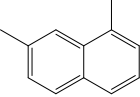
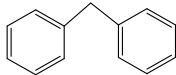
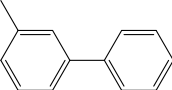
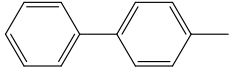
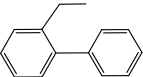
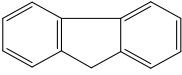
## Supporting Information

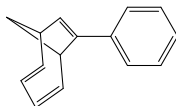
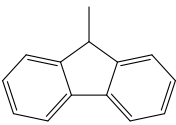
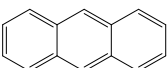
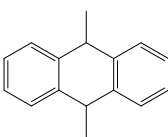
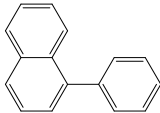
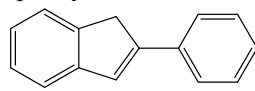
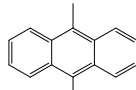
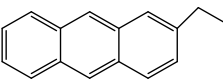
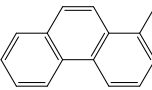
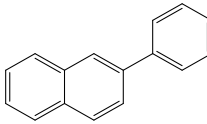
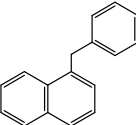
### Pressurized carbonization of mixed plastics into porous carbon sheets on magnesium oxide

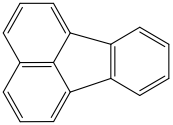
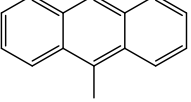
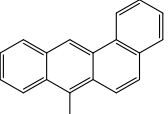
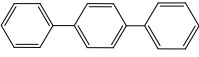
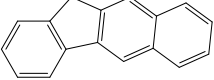
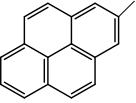
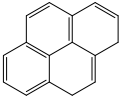
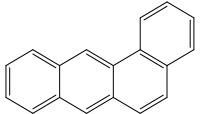
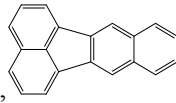
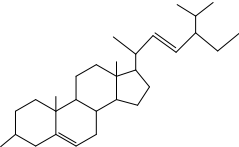
Jiali Ma,<sup>a,b</sup> Jie Liu,<sup>b,\*</sup> Jiangfeng Song,<sup>a,\*</sup> Tao Tang<sup>b,\*</sup>

**Table S1.** Compounds of the liquid products from carbonization of the mixed plastics and MgO at 500 °C in relation to reaction time.

Elution time (min)	Substance	Portion of the total chromatographic peak area (%)			
		0 min	30 min	60min	90 min
2.012	Benzene, 	0	2.221	0	0
2.883	Toluene, 	0	6.583	0	0
4.346	Ethylbenzene, 	0	5.259	0	0
4.477	1,3-Dimethylbenzene, 	0	4.754	0	0
4.877	Styrene, 	0	2.511	0	0
6.196	1-Ethyl-3methylbenzene, 	0	0.941	0	0
6.314	1, 2, 4-Trimethylbenzene, 	0	0.664	0	0
6.570	Methylstyrene, 	0	0.762	0	0
6.687	1-Decene, C <sub>10</sub> H <sub>20</sub>	0	0.171	0	0
8.457	Undecene, C <sub>11</sub> H <sub>22</sub>	4.451	0	0	0
8.587	Undecane, C <sub>11</sub> H <sub>24</sub>	0.144	0	0	0
8.611	Indene 	0	0.681	0.308	0
9.493	3-Methylindene, 	0.641	0	0.908	0

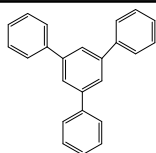
9.937	Decadiene, C <sub>10</sub> H <sub>18</sub>	0.201	0	0	0
10.094	Naphthalene, 	3.607	16.763	17.6	0
11.430	Tridecadiene, C <sub>13</sub> H <sub>24</sub>	1.377	0.045	0.056	0
11.539	1-Tridecene, C <sub>13</sub> H <sub>26</sub>	2.493	0.271	0.473	0.252
11.653	Tridecene, C <sub>13</sub> H <sub>28</sub>	1.169	0.114	0.212	0.146
11.731	2-Methyl-naphthalene, 	4.635	6.403	9.776	1.867
11.87	1-Tetradecene, C <sub>14</sub> H <sub>28</sub>	4.284	0	0	0
12.898	Biphenyl,  3-Cyclohexen-1-yl-benzene	0	7.246	10	0
12.922		0.24	0	0	9.449
13.011	Tetradecane, C <sub>14</sub> H <sub>30</sub>	1.543	0	0.445	0
13.438	1,7-Dimethylnaphthalene, 	0.719	1.99	2.432	0.834
13.586	Biphenylmethane, 	0.535	0	0.839	0.933
13.819	1-Hexadecene, C <sub>16</sub> H <sub>32</sub>	3.222	0	0.541	0
14.187	1-Pentadecene, C <sub>15</sub> H <sub>30</sub>	2.566	0.445	0.538	0
14.257	 3-methyl-1,1'-Biphenyl	0.205	0.686	2.499	4.852
14.265	4-methyl-1,1'-Biphenyl, 	0	2.234	1.445	0
14.283	10-Methyl-eicosane, C <sub>21</sub> H <sub>44</sub>	1.448	0	0	0
14.829	2,6,10-trimethyl-Tetradecane, C <sub>17</sub> H <sub>36</sub>	1.584	0.847	0.416	0.217
14.977	1-Heptadecene, C <sub>17</sub> H <sub>34</sub>	3.08	0.575	0.576	0.897
15.310	1,9-Tetradecadiene, C <sub>14</sub> H <sub>26</sub>	0.55	0	0	0
15.345	2-Ethyl-1,1'-Biphenyl, 	0	0.263	0.28	1.236
15.476	Hexadecane, C <sub>16</sub> H <sub>34</sub>	1.738	0.417	0	0.194
15.510	Fluorene, 	0.801	1.447	3.092	4.24
16.074	1-Octadecene, C <sub>18</sub> H <sub>36</sub>	0	0.433	0	0.413
16.268	7-phenyl-Bicyclo[4.2.1]nona-2,4,7-	2.592	0.622	0.239	0

	 triene,				
16.817	 9-methyl-9H-Fluorene,	0	1.473	1.764	1.236
17.688	Octadecane, C <sub>18</sub> H <sub>38</sub>	1.211	0.47	0.31	0
17.766	 Anthracene,	1.759	4.665	7.034	15.721
	9,10-dihydro-9,10-dimethyl-Anthracene,				
17.879		0.831	1.272	0	0
18.533	 1-phenyl-Naphthalene,	0.949	2.268	2.236	4.41
	2-phenyl-1H-Indene,				
18.611		1.492	0	0.901	0.928
18.646	1-Nonadecene, C <sub>19</sub> H <sub>38</sub>	5.428	2.341	1.203	0
18.707	Nonadacene, C <sub>19</sub> H <sub>40</sub>	1.415	0	0	0.197
	1,3-Diphenyl-3-methylcyclopropene,				
18.950		0.928	0	0	0
18.959		0	0.932	0.94	0.475
19.203		0.458	0.731	0.582	0.91
19.630	1-Eicosene, C <sub>20</sub> H <sub>40</sub>	1.422	0.609	0.352	0
19.691	 2-Phenylnaphthalene,	4.139	5.506	5.794	15.884
19.874		1.081	0.495	1.383	0.648
20.57	1-Docosene, C <sub>22</sub> H <sub>44</sub>	3.365	1.315	0.507	0

20.588	Fluoranthene, 	0	0	1.365	0
20.614	Tricosane, C <sub>23</sub> H <sub>48</sub>	1.524	0	0	0.822
20.657	Hexacosene, C <sub>26</sub> H <sub>52</sub>	0.667	0.381	0	0
20.794		0	1.026	0.933	1.483
21.284		0.313	0.631	0.151	0.49
21.311		0	0	0.705	0
21.511	Octacosane, C <sub>28</sub> H <sub>56</sub>	1.401	0	0	3.317
21.964		0	0	1.531	1.967
21.972		0.419	0	0.436	1.276
22.376	Heptacosane, C <sub>27</sub> H <sub>56</sub>	13.321	4.725	4.697	0
22.329	Tricosene, C <sub>23</sub> H <sub>46</sub>	1.773	0.451	0.538	0
23.157	C <sub>24</sub> H <sub>49</sub> OH	1.997	0	0	0
23.621	Pyrene, 	0.752	1.103	2.839	6.442
23.949	Pentacosene, C <sub>25</sub> H <sub>50</sub>	1.379	0	0	6.346
24.080	Benanthracene, 	0	0	2.953	0
24.716	1-Heptacosene, C <sub>27</sub> H <sub>54</sub>	1.417	0	0	0
26.370	C <sub>35</sub> H <sub>70</sub>	5.367	2.835	3.742	0
27.372	C <sub>44</sub> H <sub>90</sub>	2.839	0.408	0	0.809
27.381	Benzofluoranthene, 	0	0.262	1.921	0
27.413		0	0	0	15.447

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28.121



0

0.19

0.335

0

1,3,5-Triphenylbenzene,

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