Supporting information

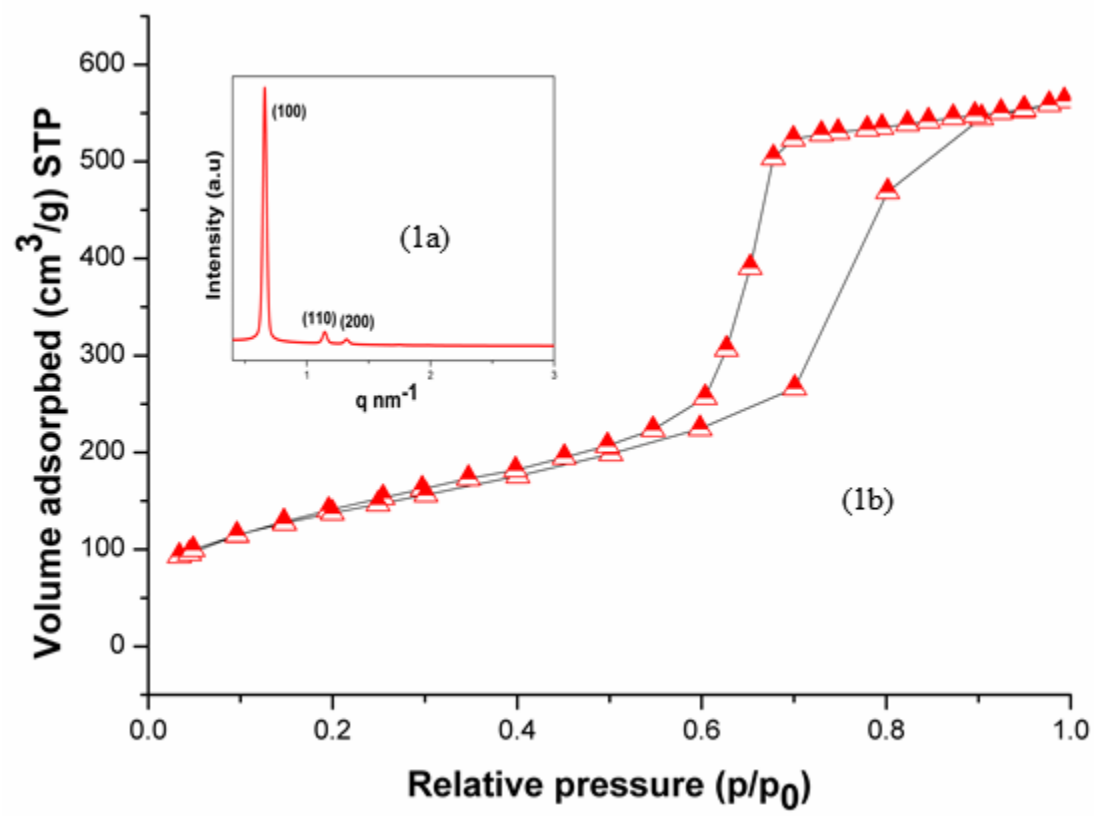

Fig. S1 SAXS (1a) and N_2 physisorption curve (1b) of SBA-15

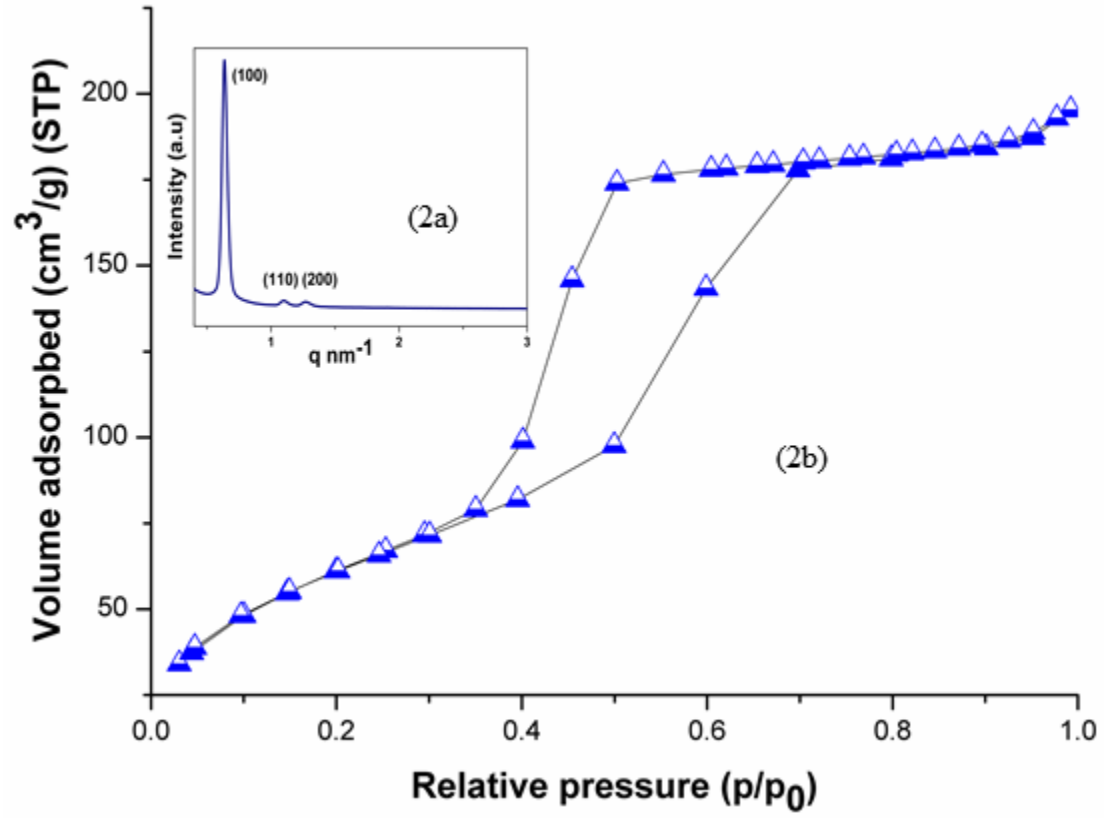

Fig. S2 SAXS (2a) and N_2 physisorption curve (2b) of propyl thiol functionalized SBA-15

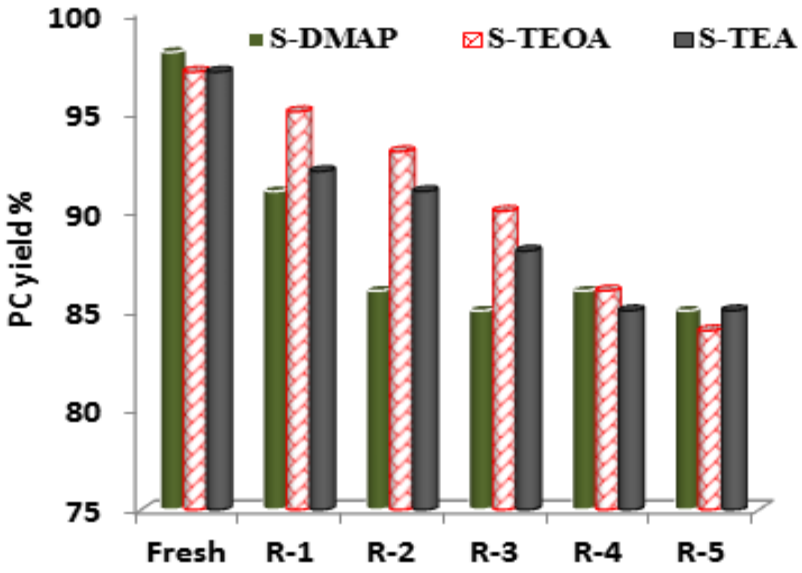

Fig. S3 The reusability of S-base catalysts (without regeneration with the corresponding organic bases).

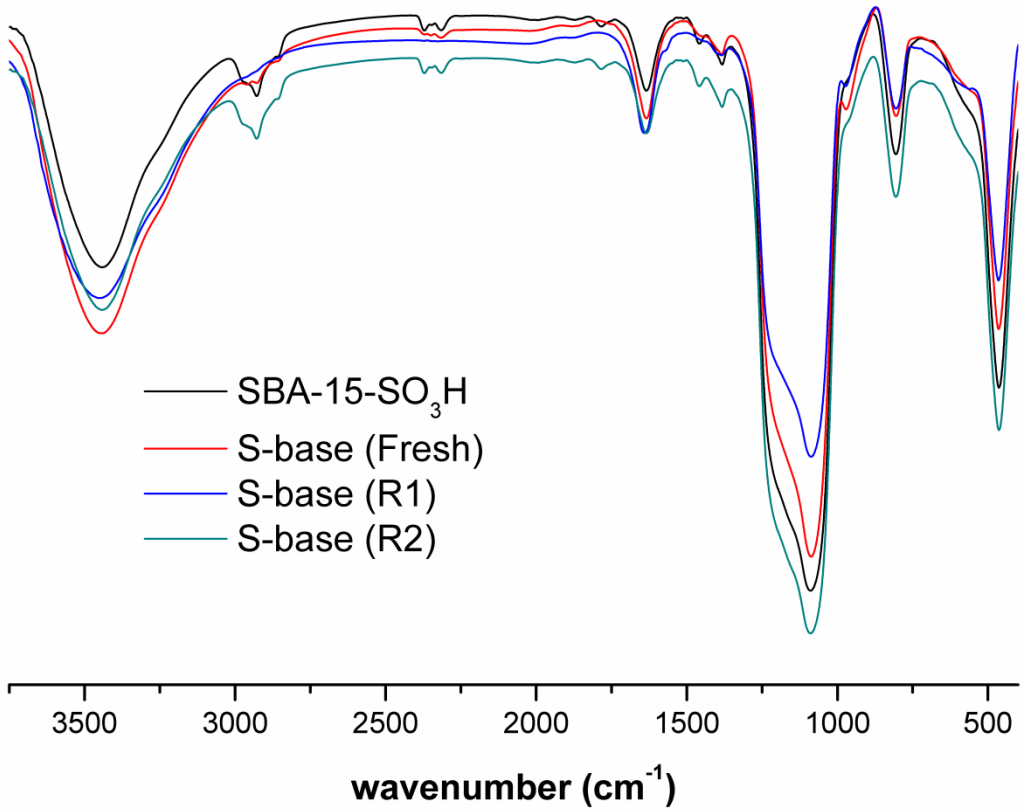

Fig. S4 FT-IR spectrum of recycled S-Base catalysts with fresh catalysts and SBA-15-SO_3H.

Table S1

Elemental analysis of organic sulphonate salt tethered SBA-15 mesoporous silica

	C %	H%	N%	S%
S-DMAP	3.97	1.23	0.29	0.60
S-TEOA	4.40	1.36	0.27	0.61
S-TEA	3.87	1.2	0.26	0.62

Table S2

Comparative study of the propylene carbonate synthesis using supported mesoporous silica materials

Entry		Catalyst (mol%)	Temp. (° C)	Press. (MPa)	Time (h)	Yield (%)	selec. (%)	TOF	Ref
1	Silicagel/nBu_4NBr	1	150	8	10	97	98	9	10a
2	Silica gel/$[C4\text{-}IM]^+X^-$	1.8	160	8	4	96	99	13	10b
3	Silica gel(GIL-3)	1.8	120	2	4	95	100	13	10c
4	SBA-15-IL1Br	0.78	110	2	2	85	99	53.9	5m
5	SBA-15-IL2Br	0.33	110	2	2	69	98	104	5m
6	Silica IL/$ZnCl_2$	0.03	110	1.0	1	60	99	1713	10d
7	CILBr-Si	2.2	110	1.62	3	99	99	73	5n
8	[a]Silica S–DMAP/KI	0.02	110	1.1	4	98	99	1048	This work
9	[b]Silica S-DMAP/KI	0.01	110	1.1	4	85	99	1947	This work

[a] Reaction conditions: PO -20 mmol, S-DMAP- 0.02 mol%, KI-0.4 mol%, 110 °C, 1.1 MPa, 4h.
[b] PO=42.8 mmol, S-DMAP-0.01 mol%, KI-0.2 mol% .

Table S3 N_2-physisorption studies of sulphonic /sulphonate catalysts

material	S_{BET} (m^2/g)	Pore size (nm)	Pore volume (cm^3/g)
SBA-15	488	6.2	0.91
SBA-15-SH	390	5.71	0.71
SBA-15-SO_3H	380	5.72	0.68
S-DMAP	386	5.77	0.68
S-DMAP(R3)	372	5.68	0.65
SBA-15-SO_3H(R4)	360	5.67	0.59