Electronic Supplementary Material (ESI) for Analyst

New poly(ionic liquid)-grafted silica multi-mode stationary phase for anion-exchange/reversed-phase/hydrophilic interaction liquid chromatography

Hongdeng Qiu,[a,b] Abul K. Mallik,[a] Makoto Takafuji,[a,c] Shengxiang Jiang,[b] and Hirotaka Ihara*[a,c]

[a]*Department of Applied Chemistry and Biochemistry, Kumamoto University, 2-39-1 Kurokami, Kumamoto 860-8555, Japan*

[b]*Lanzhou Institute of Chemical Physics, Chinese Academy of Science, Lanzhou 730000, China*

[c]*Kumamoto Institute for Photo-Electro Organics (Phoenics), Kumamoto 862-0901, Japan*

* Corresponding author. Tel.: +81 96 342 3661; fax: +81 96 342 3662.

E-mail address: ihara@kumamoto-u.ac.jp (H. Ihara).

Table S1. Elemental analysis of Sil-MPS and Sil-p$C_{11}C_1$Im.

Sample	%C	H%	N%	Coverage (μmol/m^2)
Sil-MPS	2.34	1.32	-	2.25(C)[a]
Sil-p$C_{11}C_1$Im	15.11	2.93	1.64	2.58(N)[b]

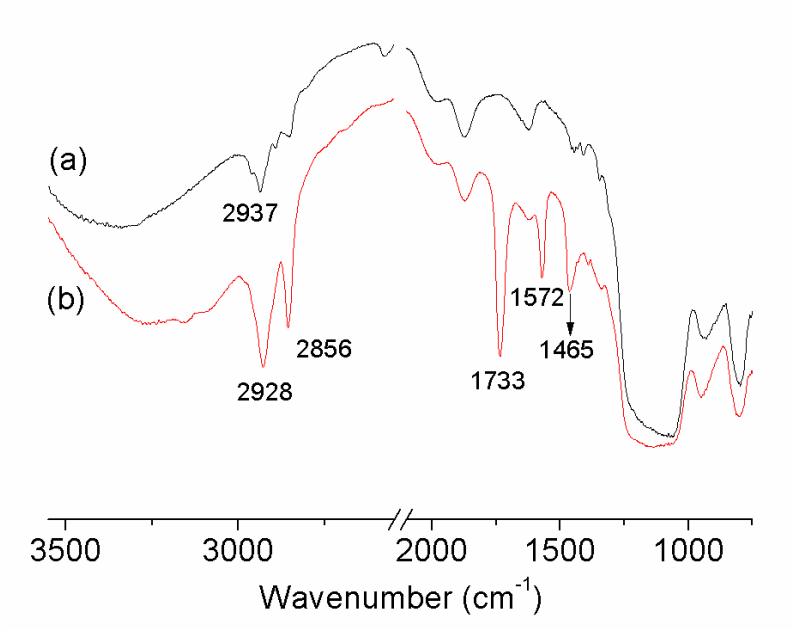

Fig. S1. DRIFT spectra of (a) Sil-MPS and (b) Sil-p$C_{11}C_1$Im.

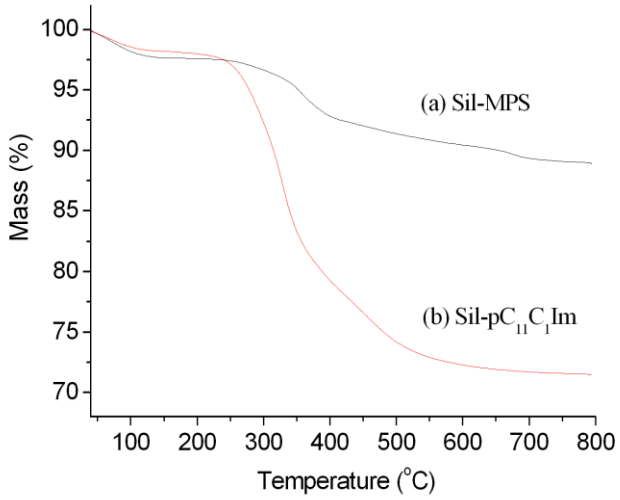

Fig. S2. Thermogravimetric curves of (a) Sil-MPS and (b) Sil-p$C_{11}C_1$Im.

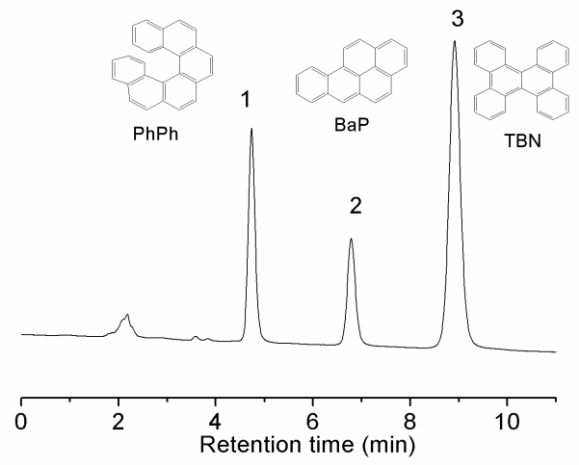

Fig. S3. Separation of SRM869b mixture including PhPh, BaP and TBN with 100% methanol at 10 °C.

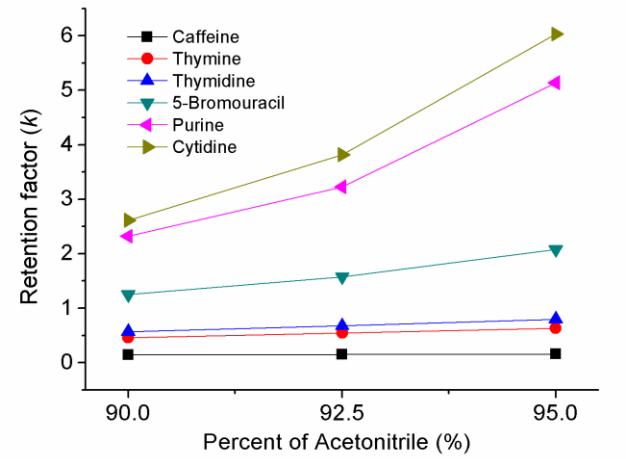

Fig. S4. Effect of the content of acetonitrile on the retention factors of bases and nucleosides.