

### Efficient Removal of Cs<sup>+</sup> in Water by DB18C6 tethered on SBA-15

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Covalently tethered DB18C6 on SBA-15 was prepared for the removal of Cs<sup>+</sup> in simulated water solutions. High ligand loading was achieved leading to an adsorption capacity (90.98 mg g<sup>-1</sup>) that is almost twice that of mesoporous silica impregnated with DB18C6. This result was attributed to smaller surface space utilized by tethered DB18C6. Selective Cs<sup>+</sup> sequestration was observed in simulated HLLW, but more prominently in simulated Cs<sup>+</sup>-contaminated surface water. This study was supported by NRF funded by The Ministry of Science and ICT (2017R1A2B2002109 and 2020R1A2C1003560), Ministry of Education (2020R1A6A1A03038817), and by KETEP funded by the Ministry of Trade, Industry & Energy (MOTIE No. 20194010201750).

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