

Electronic Supplementary Information for One pot synthesis of nZVI/BNNs for rapid debromination of polybrominated diphenyl ethers

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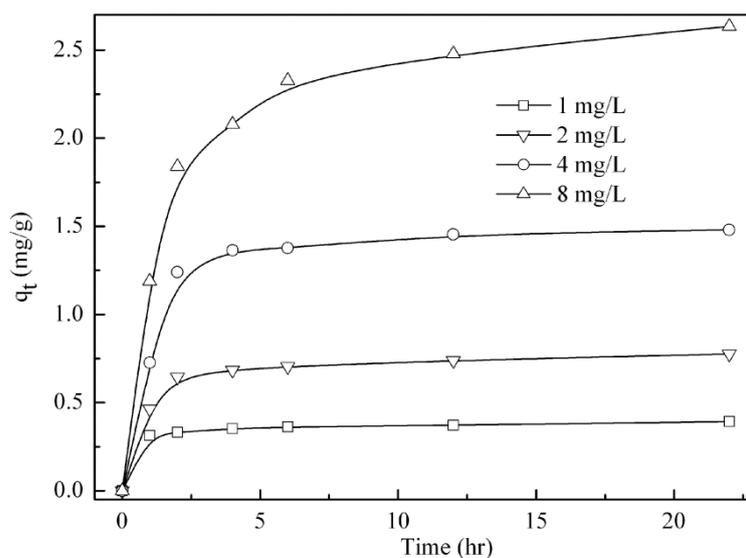


Fig. SI 1. Trends of removal rates at different DBDE concentrations.

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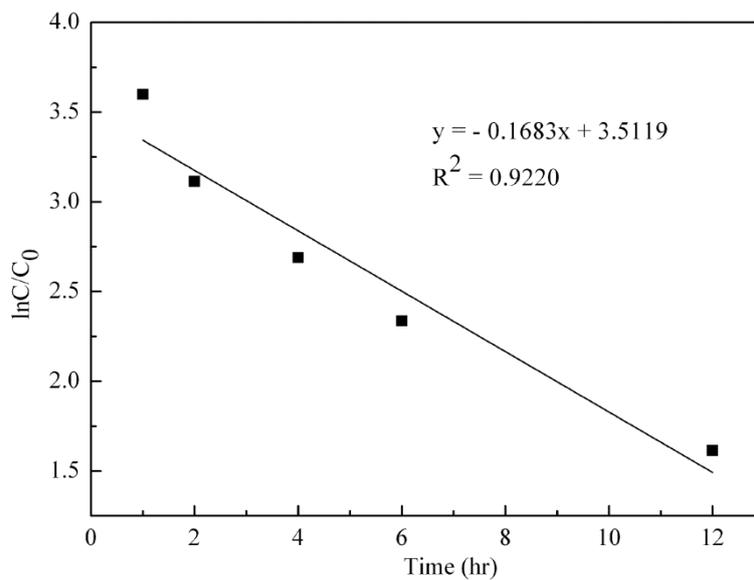


Fig. SI 2. Pseudo-first-order kinetic plots for the disappearance of DBDE at higher Fe dosage (5.0 g/L).

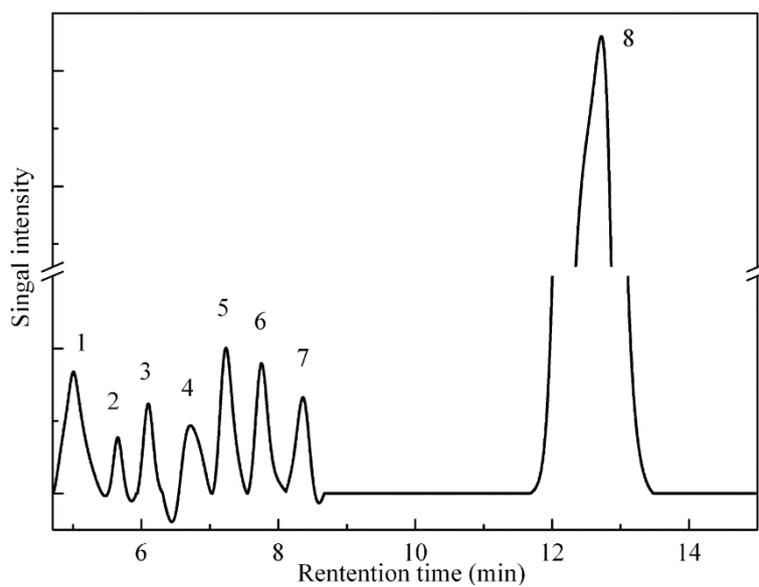


Fig. SI 3. Chromatograms of PBDEs standard solution containing a mixture of eight PBDE congeners.

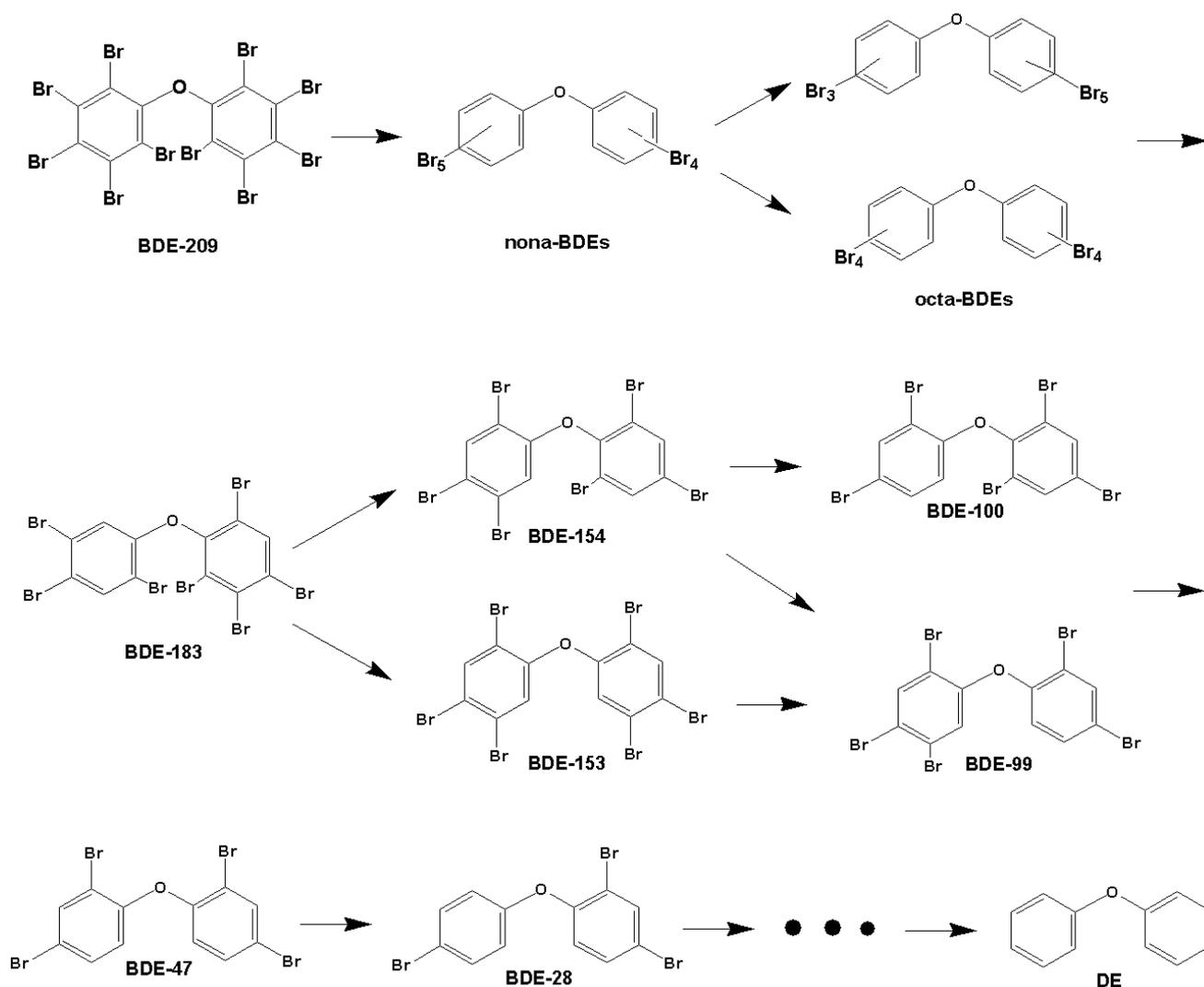


Fig. SI 4. Proposed debromination pathways of DBDE by nZVI/BNNs.

Table SI1 PBDE Standards in Order of Elution

Peak #	Component	IUPAC #	Purity (%)	Manufacturer	Relative retention time (min)
1	2,4,4'-Tribromodiphenyl ether	BDE-28	99.3	AccuStandard Inc.	5.0
2	2,2',4,4'-Tetrabromodiphenyl ether	BDE-47	100	AccuStandard Inc.	5.7
3	2,2',4,4',6-Pentabromodiphenyl ether	BDE-100	100	AccuStandard Inc.	6.1
4	2,2',4,4',5-Pentabromodiphenyl ether	BDE-99	99.2	AccuStandard Inc.	6.7
5	2,2',4,4',5,6'-Hexabromodiphenyl ether	BDE-154	100	AccuStandard Inc.	7.2
6	2,2',4,4',5,5'-Hexabromodiphenyl ether	BDE-153	100	AccuStandard Inc.	7.8
7	2,2',3,4,4',5',6-Heptabromodiphenyl ether	BDE-183	100	AccuStandard Inc.	8.3
8	2,2',3,3',4,4',5,5',6,6'-Decabromodiphenyl ether	BDE-209	98.3	AccuStandard Inc.	12.7