Supplemental Information

for

ParaCEST Contrast Agents Capable of Derivatization via "Click" Chemistry

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S1. NMR Spectra of Yb-1



S2. NMR Spectra of Ce-1



S3. NMR Spectra of Eu-1





S5. NMR Spectra of Tb-1



S6. NMR Spectra of Er-1



S7. NMR Spectra of Gd-1



S8. NMR Spectra of Ho-1



S9. NMR Spectra of Dy-1



S10. NMR Spectra of Sm-1



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S23.CEST Spectra of Tm-2



S24.CEST Spectra of Tm-3



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S26. HPLC Trace of 3



S27. Relaxivity comparison of Gd series at 20 MHz



S28. Relaxivity comparison of Gd series at 400 MHz



S29. CEST comparison of Eu series (Water)



S30. CEST comparison of Tm series (Amide)

