

ARTICLE

# Determination of stability constants of strong metal-ligand complexes using anionic or cationic ion-exchange chromatography and spectrometric detection

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## Supplementary Information

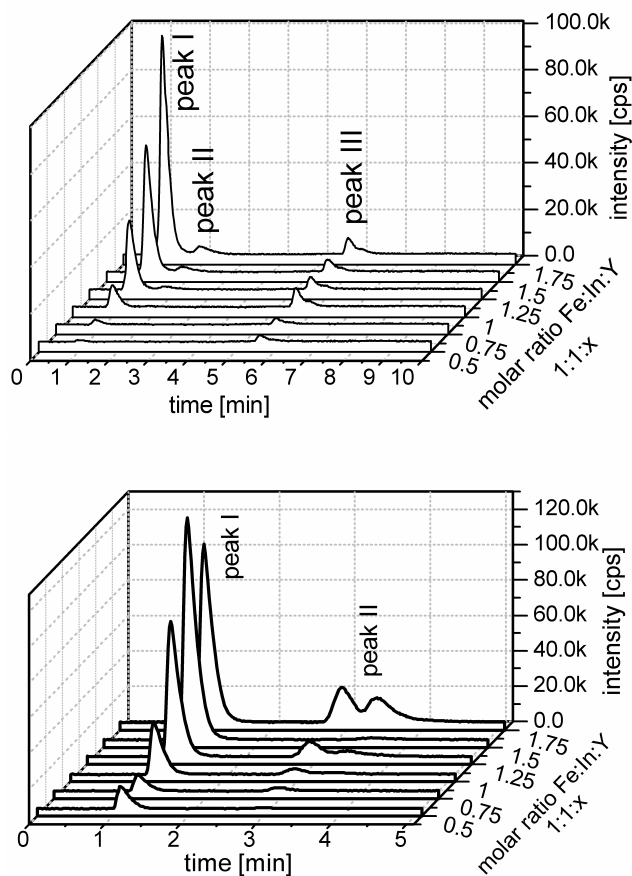
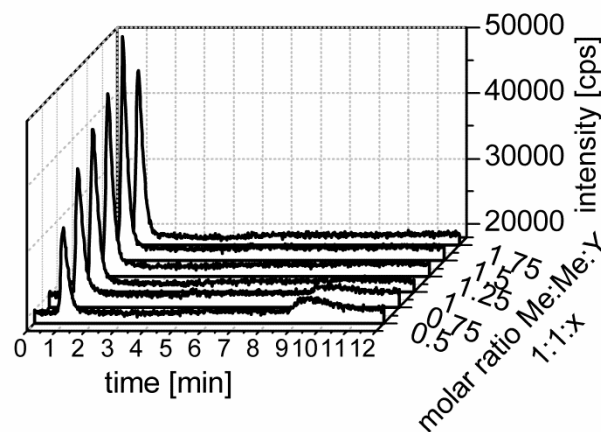


Figure S1: Measurement of iron line, competing ion indium. Left: cation IEC with elution program for all measurements with the cation IEC, right: anion IEC isocratic measurements at 120 mmol l<sup>-1</sup> NH<sub>4</sub>NO<sub>3</sub>.

Iron is a special case, because of the photolytic degeneration the first peak consists of the free metal ion and degeneration products of the FeY<sup>-</sup> complex. The last two peaks are treated like one, because they can't be separated chromatographicly, and they show the same behaviour with increasing ligand concentration. Because all three peaks increase with higher ligand concentrations it was proposed that these peaks consist of the complex species and their degeneration products, like shown in section challenges.



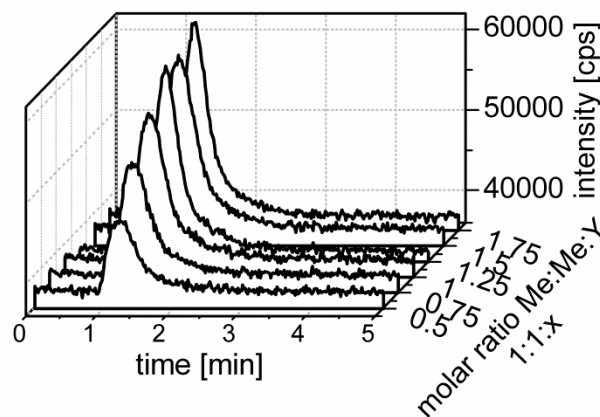
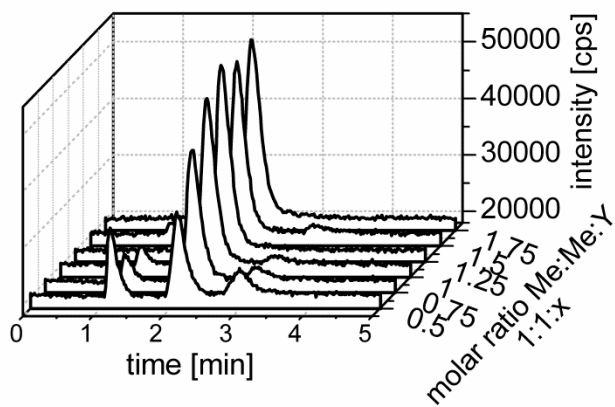


Figure S2: Measurement of indium line, competing ion iron. Left: cation IEC, right: anion IEC.

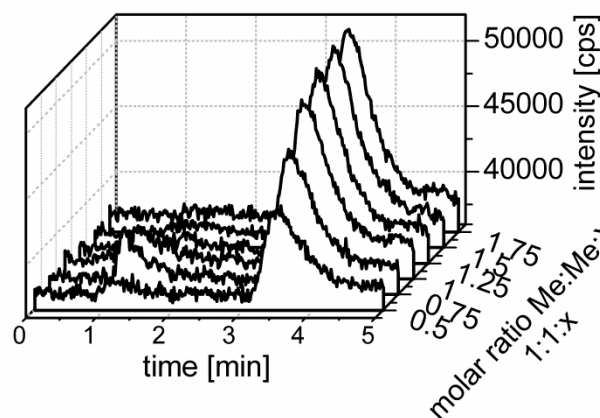
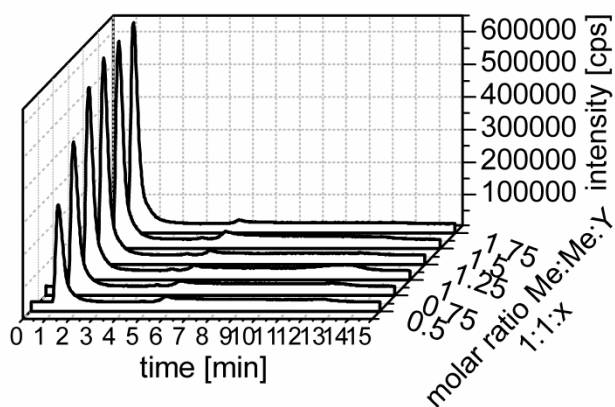


Figure S4: Measurement of gallium line, competing ion chromium. Left: cation IEC, right: anion IEC.

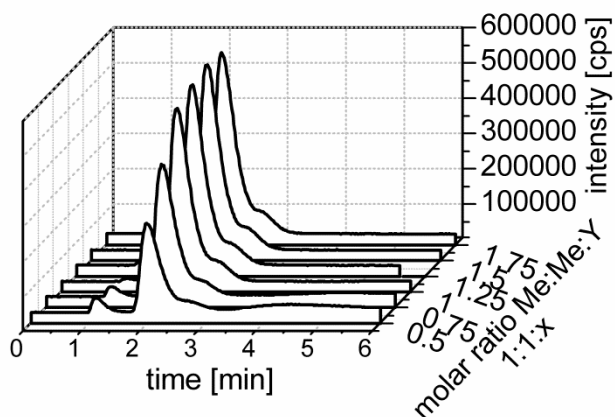


Figure S3: Measurement of scandium line, competing ion chromium. Left: cation IEC, right: anion IEC.

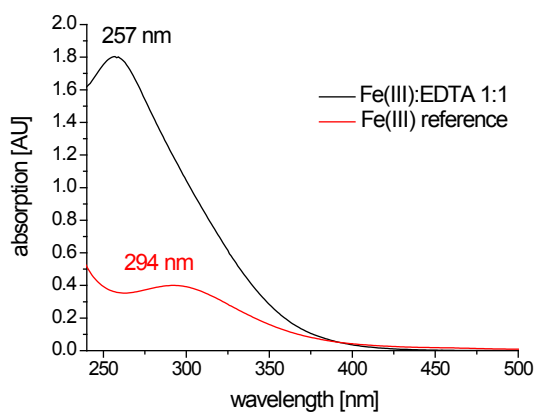


Figure S5: UV Vis spectrum of FeY<sup>-</sup> and free Fe<sup>3+</sup> ions.