

## Synthesis of Fe/Ti Oxides from a Single Source Alkoxide Precursor under Inert Atmosphere

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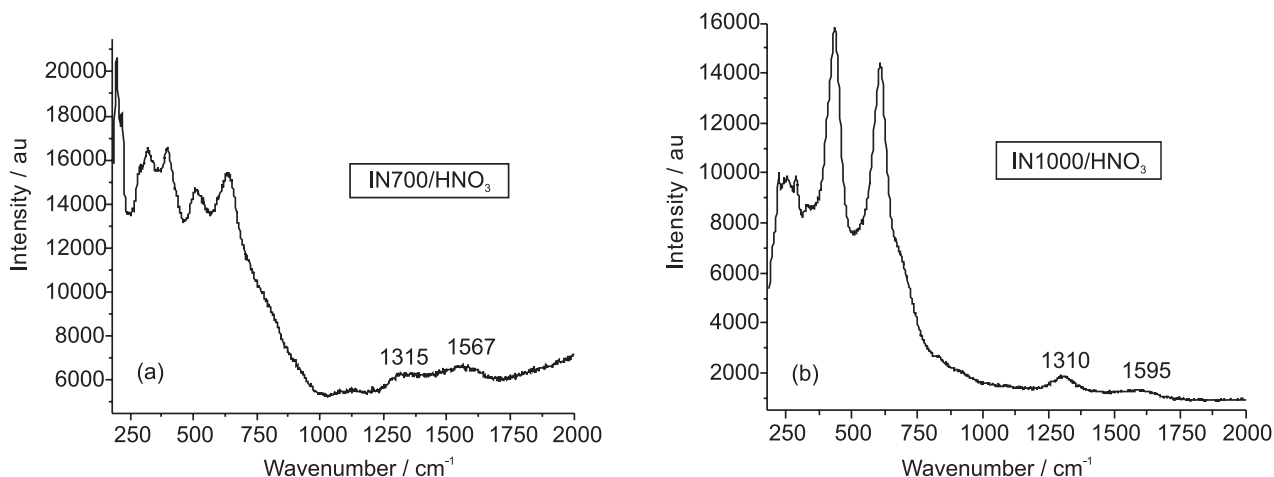
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**Table S1.** <sup>57</sup>Fe Mössbauer parameters obtained for IN55-1000/HCl at 80 K. Isomer shift (i.s.) and quadrupole splitting (q.s.) values are in mms<sup>-1</sup>

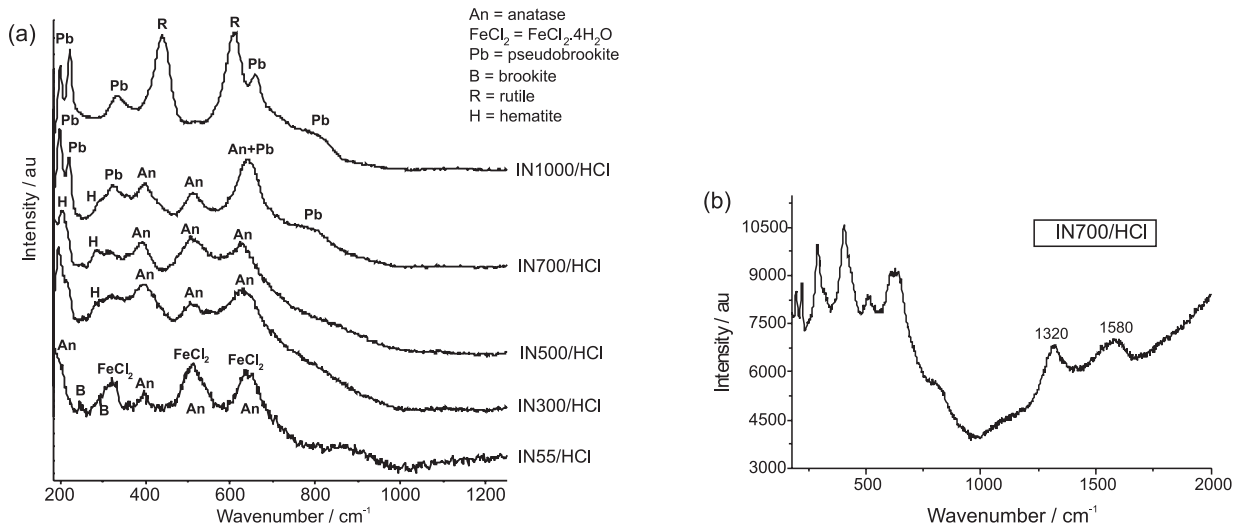
Sample/ Mössbauer parameters <sup>a</sup>	i.s.	q.s.
IN55/HCl	1.29	2.97
IN300/HCl	0.42	0.81
IN700/HCl	0.45	0.72
IN1000/HCl	0.44	0.70

<sup>a</sup>No fitting could be achieved for IN500/HCl due to the small mass of the sample and, consequently, the too low spectrum intensity.

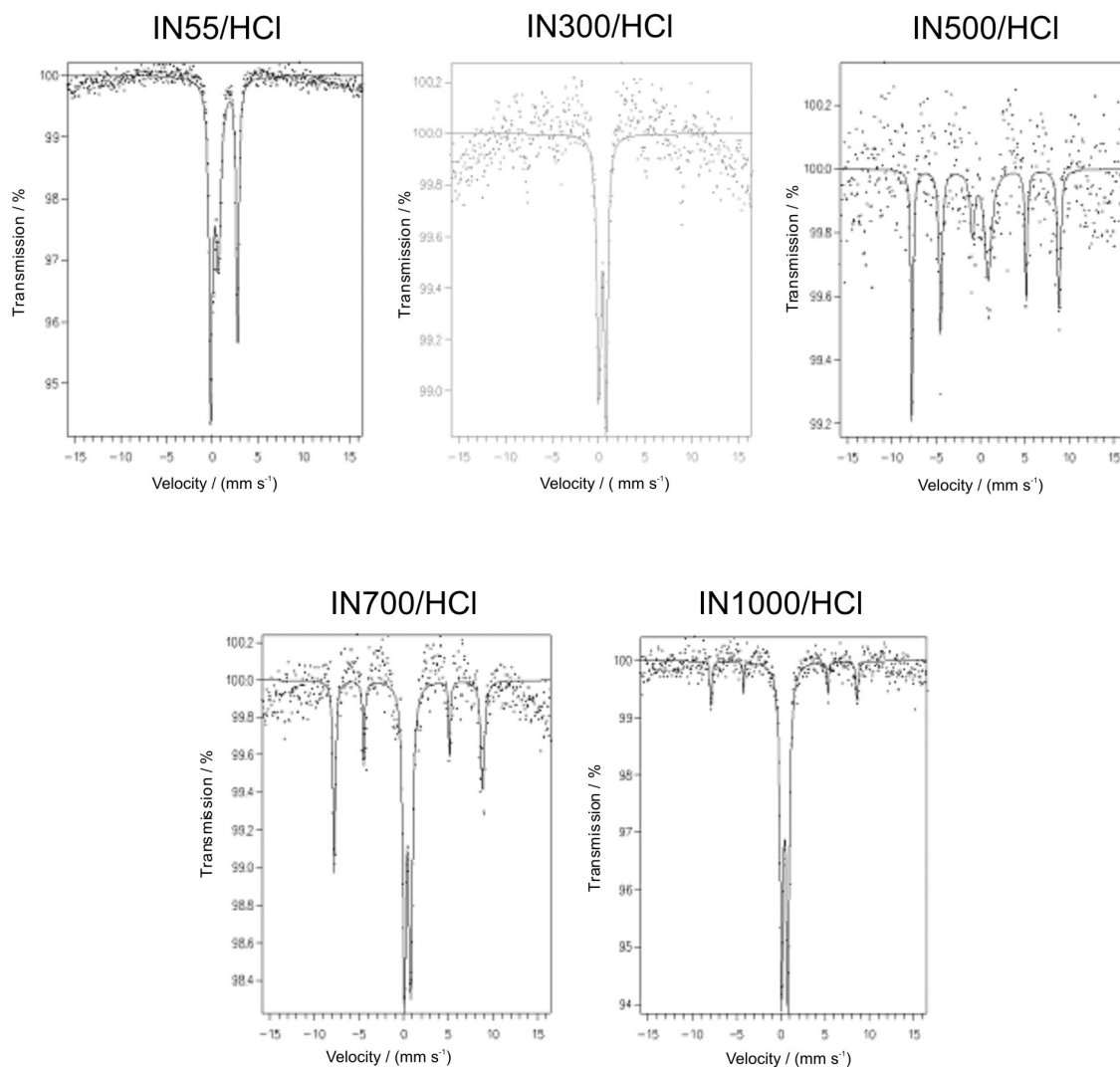


**Figure S1.** Raman spectra for (a) IN700/HNO<sub>3</sub> and (b) IN1000/HNO<sub>3</sub> in the range of 180-2000 cm<sup>-1</sup>. Bands at 1200-1700 cm<sup>-1</sup> are possibly related to the presence of disordered carbon in the samples.

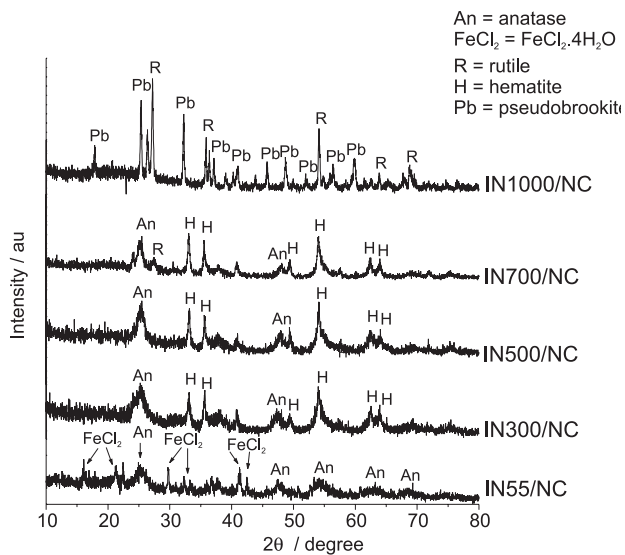
\*e-mail: jaisa@quimica.ufpr.br



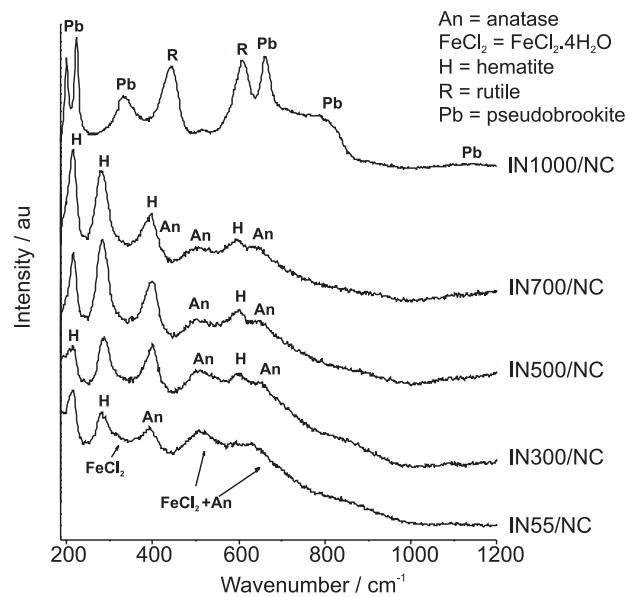
**Figure S2.** (a) Raman spectra for IN55-1000/HCl. (b) Raman spectrum for IN700/HCl in the range of 180-2000 cm<sup>-1</sup>. The broad bands at 1320 and 1580 cm<sup>-1</sup> are compatible with the presence of disordered carbon.



**Figure S3.** Zero field <sup>57</sup>Fe Mössbauer spectra registered at 80 K for IN55-1000/HCl. Some spectra have low signal/noise ratios, because of the small amount of sample available for analysis.



**Figure S4.** Powder X-ray diffractograms for IN55-1000/NC.



**Figure S5.** Raman spectra for IN55-1000/NC.