

Electronic supplementary information (ESI)

For the paper

Fe₃O₄-based composite magnetic nanoparticles for volatile compound sorption in gas phase: determination of selenium

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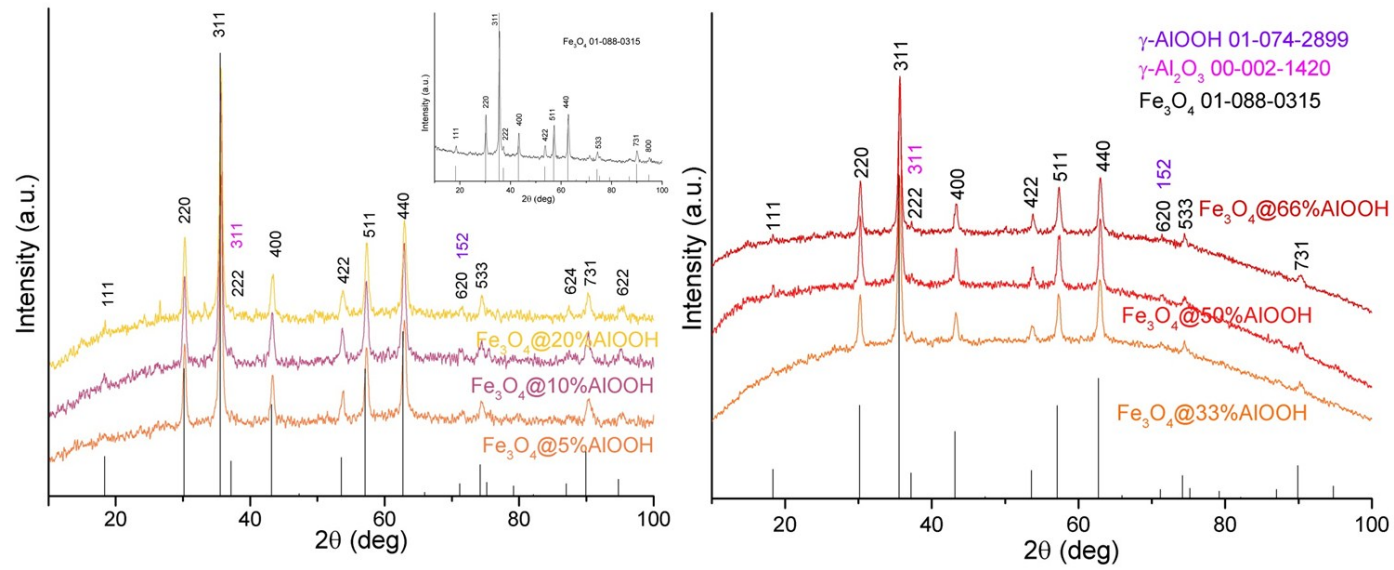
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ESI Table 1. The temperature program of microwave digester for pharmaceuticals digestion.

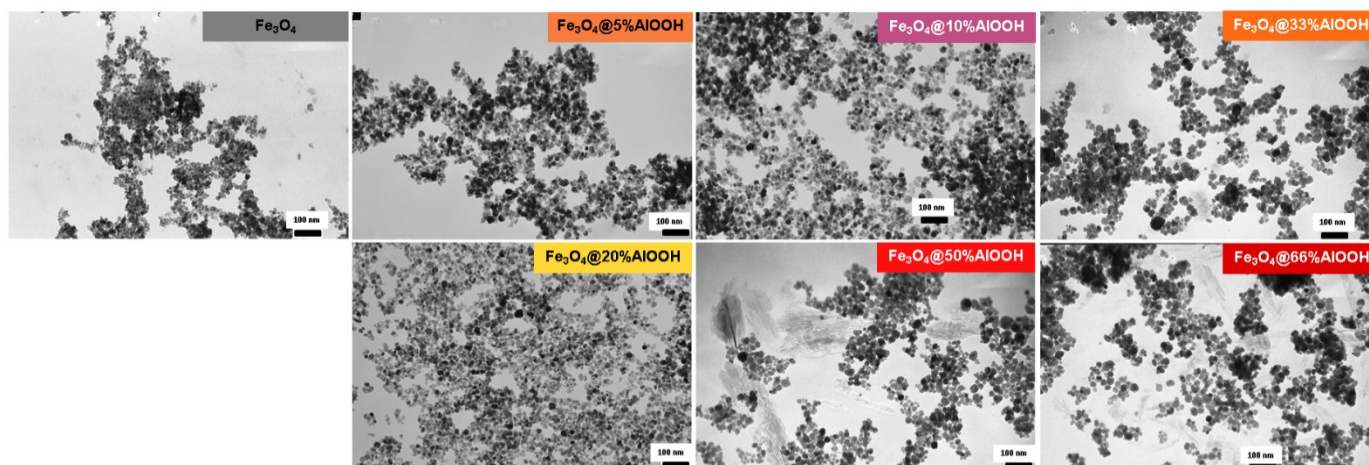
T, °C	t, min	Microwave power, W
100	10	600
130	10	600
150	5	600
180	10	600
210	30	600

ESI Table 2. The temperature program of atomic absorption spectrometer.

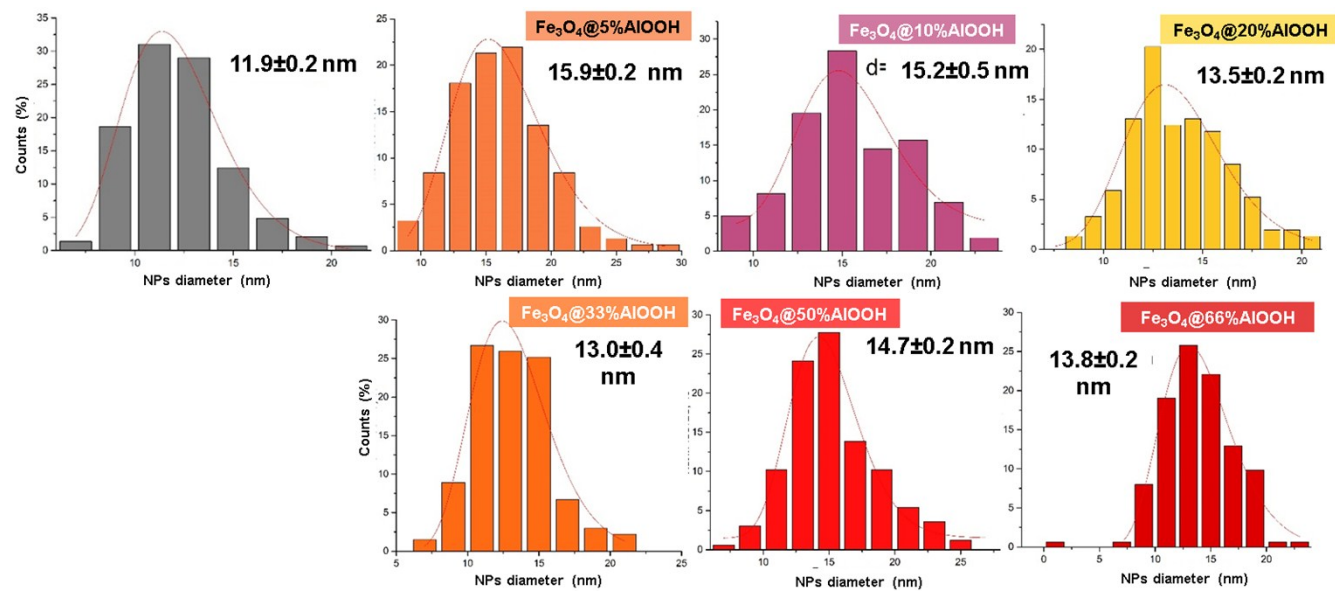
№	T, °C	t, s	Flow rate of Ar, L min ⁻¹
1	90	20	0.10
2	120	20	0.10
3	250	20	0.1
4	900	10	1.0
5	900	20	1.0
6	900	3	0.0
7	2300	3	0.0
8	2500	2	1.0



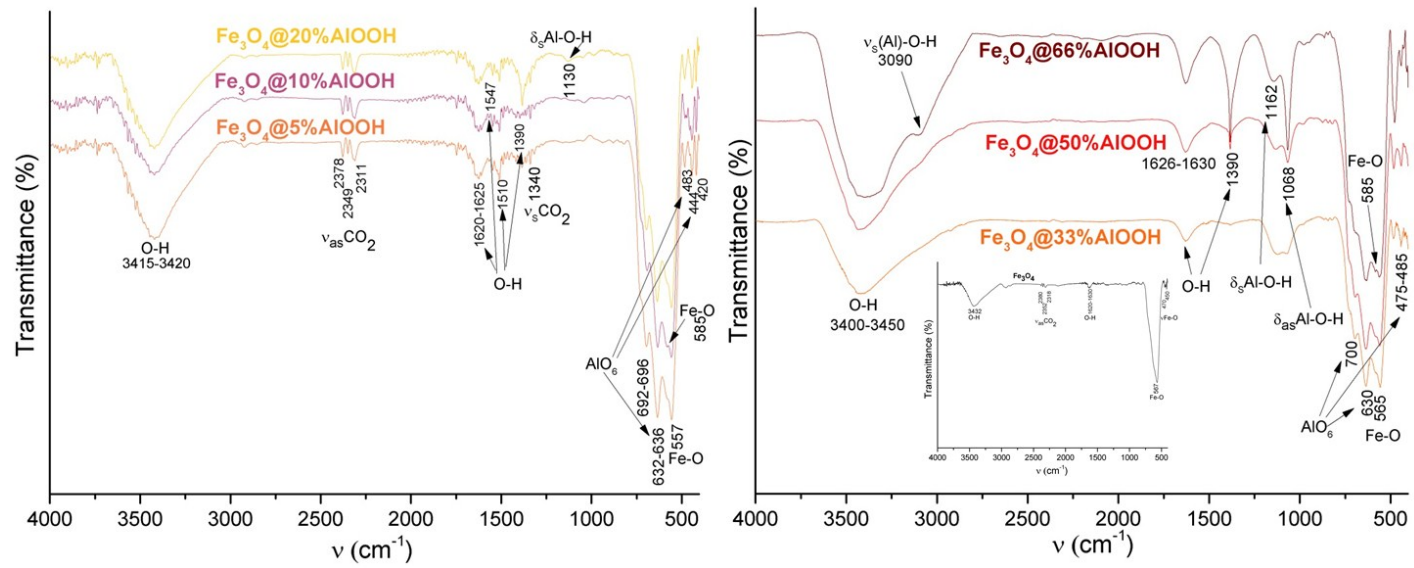
ESI Fig. 1. XRD patterns of the MNPs synthesized.



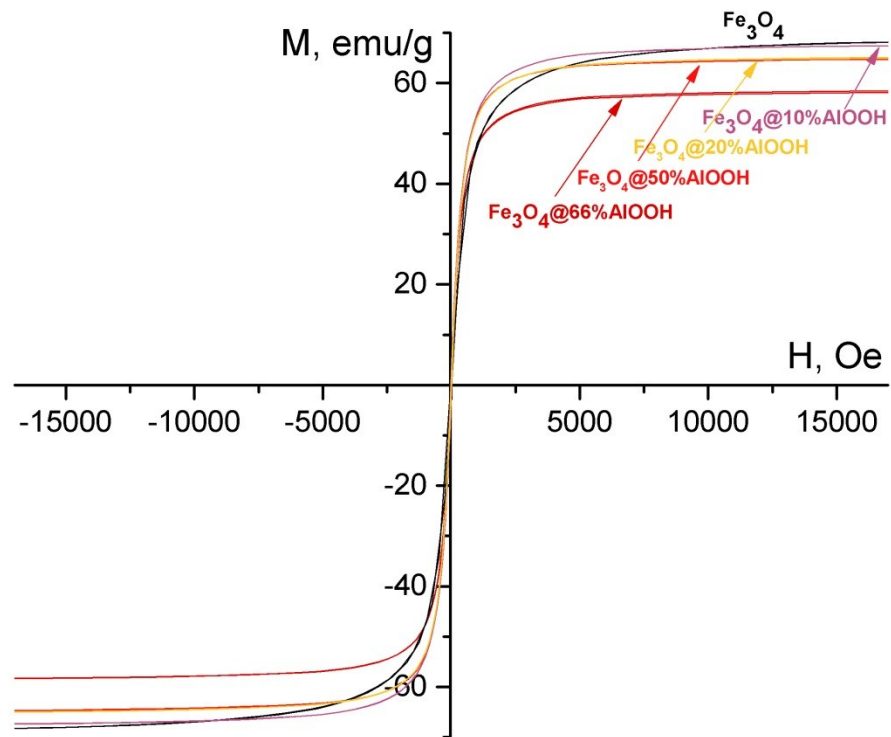
ESI Fig. 2. TEM images of the MNPs synthesized.



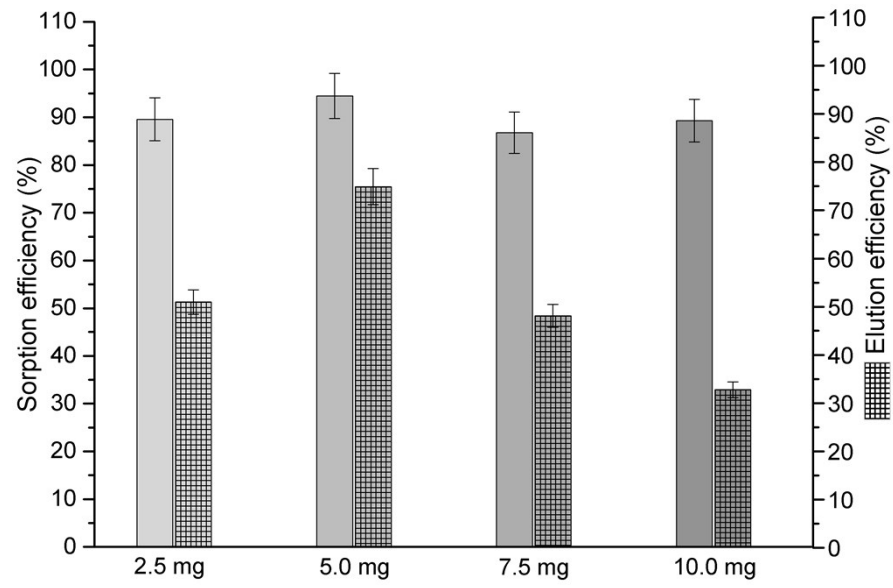
ESI Fig. 3. Size distributions of the MNPs synthesized.



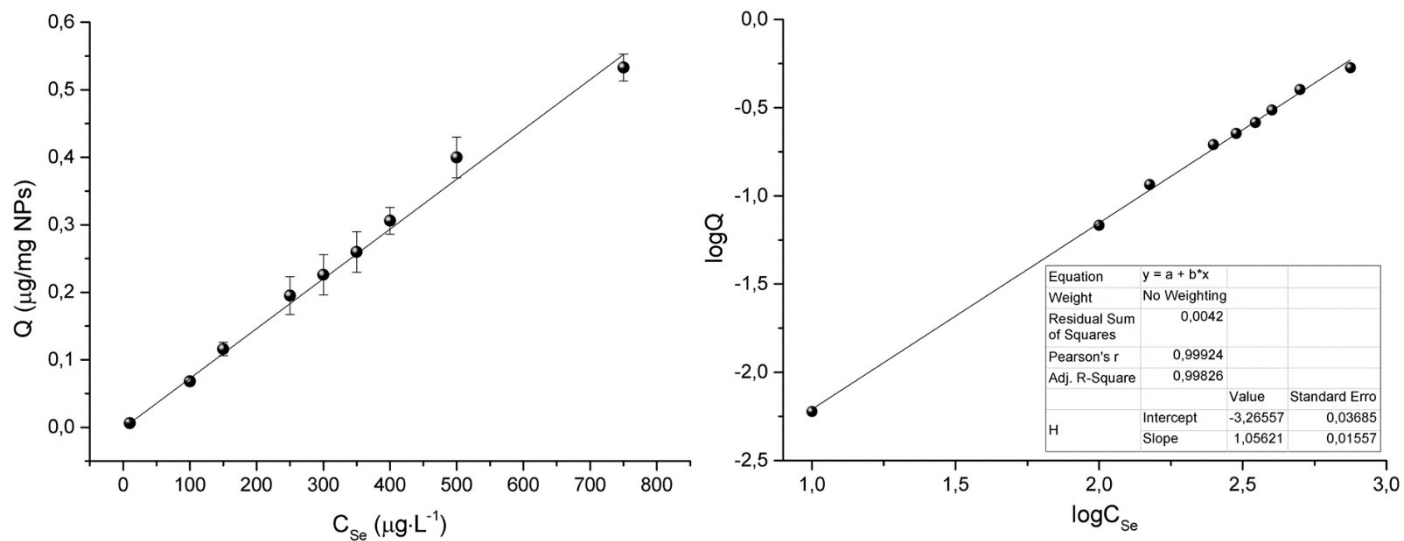
ESI Fig. 4. FTIR spectra of the MnPs synthesized.



ESI Fig. 5. VSM data for the MNPs synthesized.



ESI Fig. 6. Effect of Fe₃O₄ amount.



ESI Fig. 7. H_2Se adsorption isotherm for bare Fe_3O_4 nanoparticles (left) (5 mg of MNPs) and Freundlich model linearization (right).