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Multi-residue enantiomeric analysis of 18 chiral pesticides in water, soil and river sediment using magnetic solid-phase extraction based on amino modified multiwalled carbon nanotubes and chiral liquid chromatography coupled with tandem mass spectrometry

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Highlights

- 18 chiral pesticides were simultaneously determined at enantiomeric levels.
- The prepared m-MWCNTs-NH_2 was firstly applied for the adsorption of pesticides.
- Enantiomeric compositions were determined both in solid and liquid matrices.
- Some pesticides enantiomers were firstly separated under reversed phase conditions.
- Chiralpak IG column was firstly used for the enantioseparation of chiral pesticides.