

Supporting Information

Fabrication and Application of Graphene Oxide Modified Cyclodextrin Chiral Separation Membrane

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HPLC analysis conditions for tryptophan

Column: C18 column (150×4.6 mm, 5 μm)

Mobile phase: aqueous solution (0.375 mmol L⁻¹ L-phenylalanine and 0.075 mmol L⁻¹

copper sulfate): methanol = 80: 20 (V/V)

Flow rate: 1.0 mL min⁻¹

Column temperature: 35 °C

UV detection wavelength: 278 nm

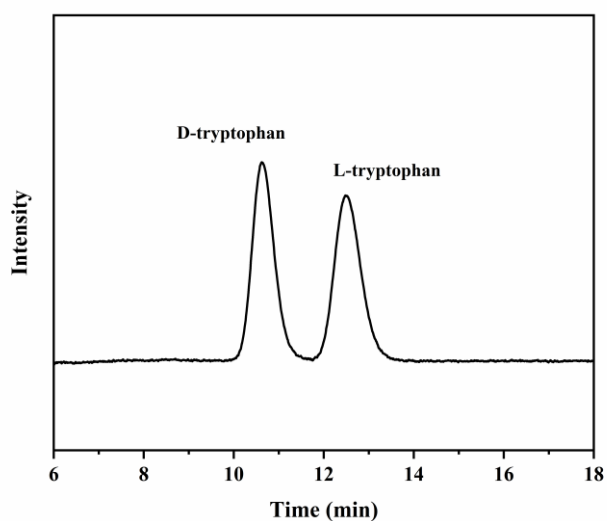


Fig. S1. The HPLC chromatogram of the enantioseparation for tryptophan

HPLC analysis conditions for propranolol [1]

Column: AGP column (150×4.0 mm, 5 μm)

Mobile phase: sodium acetate buffer (20 mmol/L, pH 4.5): methanol = 92: 8 (V/V)

Flow rate: 0.8 mL min⁻¹

Column temperature: 25 °C

UV detection wavelength: 220 nm

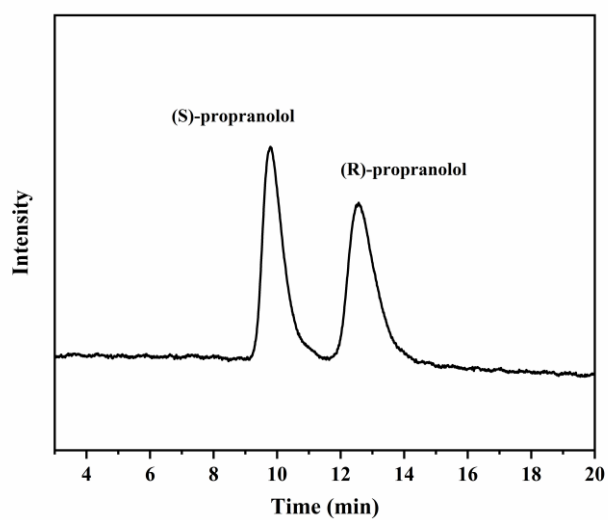


Fig. S2. The HPLC chromatogram of the enantioseparation for propranolol

HPLC analysis conditions for warfarin [2]

Column: AGP column (150×4.0 mm, 5 μm)

Mobile phase: phosphate buffer (10 mmol L⁻¹, pH 7.0): acetonitrile= 90:10 (V/V)

Flow rate: 0.8 mL min⁻¹

Column temperature: 28 °C

UV detection wavelength: 310 nm

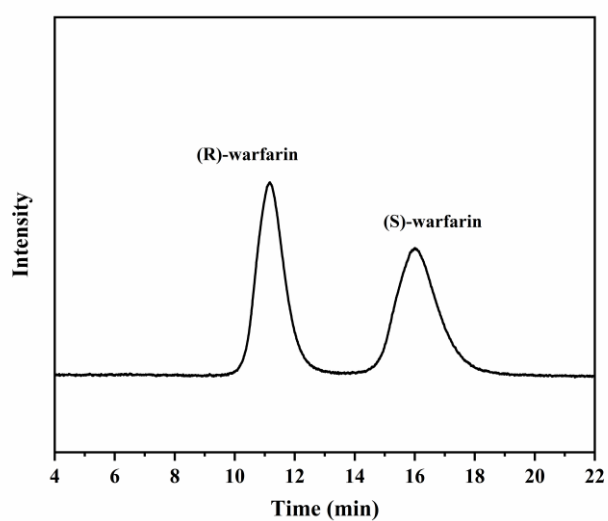


Fig. S3. The HPLC chromatogram of the enantioseparation for warfarin

HPLC analysis conditions for metoprolol [3]

Column: AGP column (150×4.0 mm, 5 μm)

Mobile phase: phosphate buffer (10 mmol L⁻¹, pH 7.0): methanol = 94:6 (V/V)

Flow rate: 0.8 mL min⁻¹

Column temperature: 25 °C

UV detection wavelength: 220 nm

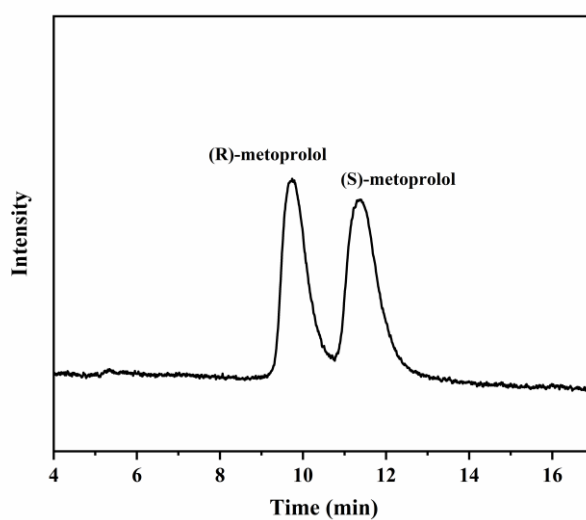


Fig. S4. The HPLC chromatogram of the enantioseparation for metoprolol

References

- [1] H. Luo, X. Bai, H. Liu, X. Qiu, J. Chen and Y. Ji, *Sep. Purif. Technol.*, 2021, **285**, 120336.
- [2] A. Shibukawa, M. Nagao, Y. Kuroda and T. Nakagawa, *Anal. Chem.*, 1990, **62**, 712-716.
- [3] B.A. Persson, K. Balmer, P.O. Lagerstrom and G. Schill, *J. Chromatogr A.*, 1990, **500**, 629-36.