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Natural deep eutectic solvents and their application in natural product research and development

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Curriculum Vitae

Yuntao Dai was born on June 18th, 1981, in Shanxi, China. She got her Bachelor degree in the Department of Pharmacy, School of Chemistry, Shanxi University in 2005. Her undergraduate research project was about natural products isolation in the Institute of Pharmacology and Toxicology, Academy of Military Medical Sciences, Beijing, China, supervised by the researcher Dr. Qiao Shanyi. She received a recommendation to be exempted from the admission exam to her Master course which she followed in the Modern Research Center for Traditional Chinese Medicine, Shanxi University from 2005 to 2008. During the M.Sc., she studied the anti-depressive effect of Xiaoyaosan with GC-MS based metabolomics and the quality assessment of tradition herbal medicine supervised by Prof. Dr. Qin. At the end of 2008, she did research on the implementation of a 2D RP/RPLC method to separate components in *Fructus schisandrae* chinensis in the Multi-component Chinese Medicine Group, Dalian Institute of Chemical Physicals, China. In 2009, she started her PhD studies in Leiden University, the Netherlands sponsored by the Chinese Scholarship Council. Her PhD research project was "Natural deep eutectic solvents (NADES) and their application in green extraction of flavonoids" supervised by Prof. Dr. Rob. Verpoorte, Prof. Dr. Geert-jan Witkamp, and Assistant Prof. Dr. Young Hae Choi.

She is interested in NADES and their applications in the pharmaceutical industry, quality and activity of traditional Chinese medicine (TCM), extraction and isolation of biologically active natural products, and NMR- and chromatography- based metabolomics.

List of Publications

- Dai, Y.; Verpoorte, R.; Choi, Y. H., Natural deep eutectic solvents for the extraction and storage of anthocyanins. Ready for submittion.
- **Dai, Y**.; Verpoorte, R.; Witkamp, G.-J.; Choi, Y. H., Natural deep eutectic solvents providing enhanced stability of natural colourants from safflower (*Carthamus tinctorius*). Ready for submittion.
- **Dai, Y**.; Verpoorte, R.; Witkamp, G.-J.; Choi, Y. H., Tailoring the properties of natural deep eutectic solvents with the addition of water to facilitate their applications. Submitted.
- **Dai, Y**.; Spronsen, J. v.; Witkamp, G.-J.; Verpoorte, R.; Choi, Y. H., Ionic liquids and deep eutectic solvent in natural products research: a mixture of solid as an extraction solvent. *Journal of Natural Product*, Submitted.
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