

Hsi-Ya Huang

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Ph.D., University of Chiao Tung at Taiwan

Professor, Department of Chemistry

Fields of Expertise: Analytical Chemistry, Capillary Electrophoresis, Chromatographic Technology, Microstructure Analysis



◆ Research Interests

- ◆ Hsi-Ya Huang is a Full Professor in Analytical Chemistry at the Chemistry Department of Chung Yuan Christian University. Courses taught include Basic Chemistry, Analytical Chemistry and Instrumental Analysis. Hsi-Ya Huang's research interests are in the areas of Capillary Electrophoresis and Chromatographic Technology. Research topics include the application of: (1) ionic liquids for capillary electrokinetic chromatography and nanoscale liquid chromatography, (2) microwave polymerization, (3) capillary electrophoresis or nano liquid chromatography coupled to mass spectrometry in microanalysis, and (4) Chromatographic Technology in the metabolomics and proteomics.

◆ Selected Publications

- ◆ **Hsi-Ya Huang***, Yung-Han Shih, Singco Brenda, Wan-Ling Liu, Chao-Hsiang Hsu, "A rapid synthetic method for organic polymer-based monoliths in a room temperature ionic liquid medium via microwave-assisted vinylization and polymerization." *Green Chemistry*, 13 (2011) 296-299.
- ◆ **Hsi-Ya Huang***, Chao-Hsiang Hsu, Yi-Jie Cheng, Singco Brenda, "Analysis of non-steroidal anti-inflammatory drug by on-line concentration capillary electrochromatography using poly(styryl methacrylate-divinylbenzene) monolithic column." *J. Chromatogr. A* 1218 (2011) 350-358.
- ◆ **Hsi-Ya Huang***, Yi-Jie Cheng, Wan-Ling Liu, Yi-Fen Hsu, Szetsen Lee, "Poly(divinylbenzene-alkyl methacrylate) monolithic stationary phases in capillary electrochromatography" *J. Chromatogr. A*, 1217 (2010) 5839-5847.

◆ Recent Research Projects

- ◆ Application of ionic liquids for capillary electrokinetic chromatography and nanoscale liquid chromatography sponsored by the National Science Council (August 2009 ~ July 2011)
- ◆ A novel green study: application of metal organic frameworks on protein digestion chromatographic separation, and liquid crystal recovery by the National Science Council (August 2011 ~ July 2014).