

Mark D. Shelley II, Ph.D.



**Associate**

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**INDUSTRIES**

Biotechnology/Life  
Sciences  
Energy  
Technology

**PRACTICE AREAS**

Intellectual Property  
Litigation  
Intellectual Property  
Litigation

**EDUCATION**

JD, 2005, *magna cum laude*, University of Houston Law Center, Houston Journal of International Law, Order of the Barons, Order of the Coif  
PhD, 2000, Chemical Engineering, Auburn University  
MS, 1995, Chemical Engineering, Texas A&M University  
BChE, 1993, *summa cum laude*, Auburn University, Phi Kappa Phi, Tau Beta Pi

**ADMITTED**

Texas 2005  
US Patent and  
Trademark Office

Mark's practice includes intellectual property matters and related issues.

Mark has over nine years of experience as a chemical engineer, including three years with an engineering consulting firm providing on-site energy assessments for the industrial customers of a Fortune 500 energy company. As a consultant to the pulp and paper, refining, and petrochemical industries, he has identified, developed, and implemented numerous energy/process optimization projects that resulted in substantial financial and environmental benefit.

During his graduate studies, Mark introduced the novel concept of "property integration," a component-less design paradigm which allows chemical engineering process design and optimization to be performed based upon chemical properties rather than individual chemical species or components.

Mark has co-authored numerous papers and conference presentations on chemical process performance optimization using advanced process integration methodologies, tools, and techniques.

**ARTICLES/PUBLICATIONS**

- "Componentless Design of Recovery and Allocation Systems: A Functionality-Based Clustering Approach" *24 Computers & Chemical Engineering* 2081-91 (2000)
- "Techno-Economic Feasibility and Flowsheet Synthesis of Scrap Tire/Waste Plastic Liquefaction " *31 J. Elastomer & Plastic* 232-54 (1999)
- "Thermodynamic Analysis of Trinitrotoluene Biodegradation and Mineralization Pathways" *50 Biotechnology & Bioengineering* 198-205 (1996)

**PROFESSIONAL/CIVIC AFFILIATIONS**

**Member -**

- State Bar of Texas
- Registered Professional Engineer (Texas)
- Houston Young Lawyers Association
- American Intellectual Property Law Association
- American Institute of Chemical Engineers