

## **Adry Bissada**

*Professor – Petroleum Geochemistry  
Director, Center for Petroleum Geochemistry  
Dept. of Earth and Atmospheric Sciences  
College of Natural Sciences and Mathematics  
University of Houston*

Office/lab location: Science and Research 1. Room 103

Phone: 713-743-4026 (Office); 713-818-7544 (Cellphone)

Email: kbissada@central.uh.edu

Faculty website (<http://www.uh.edu/nsm/earth-atmospheric/people/faculty/adry-bissada/>)

Lab website (<http://cpg.uh.edu/>)

## **Education**

Ph.D., Geology (Geochemistry), 1967, Washington University, St. Louis.

M.S., Geology (Geophysics), 1965, Washington University, St. Louis, Mo.

B.Sc., Geology & Chemistry, 1962, University of Assiut, Egypt.

## **Areas of Expertise**

- Petroleum geochemistry/organic geochemistry
- Unconventional oil & gas resources (oil shale; extra-heavy Oil; gas & liquids-rich shale)
- Petroleum system studies and basin modelling
- Geologic & geochemical controls on hydrocarbon generation, migration & accumulation
- Impact of invasive reservoir simulation practices on reservoir souring

## **Experience**

- 10/99-present Professor, program director, University of Houston
- 10/95-9/99 Senior research scientist, director, Geotechnology Research Institute, Houston
- 1969-1995 Texaco E&P Technology Department, Houston, Texas
  - 1993-1995 Manager, Geochemical Applications
  - 1992-1993 Senior Research Consultant (1-year Research Sabbatical)
  - 1984-1991 Manager, Geochemical Research
  - 1979-1984 Supervisor - Geologic Research
  - 1969-1979 Sr. Geologist; Research Geologist, Sr. Research Geologist
- 10/67-7/69 Sinclair Oil & Gas Company, Tulsa, Oklahoma

## **Teaching Courses/workshops**

- Petroleum geochemistry
- Petroleum system analysis
- Quantitative hydrocarbon generation/migration analysis for prospect ranking/play evaluation
- Principles and practice of organic geochemistry in exploration
- Geochemistry in reservoir management & producing operations

## **Publications**

Mei, M., Bissada, K. K., Malloy, T. B., Darnell, L. M., Szymczyk, E. B. 2017. Improved Method for Simultaneous Determination of Saturated and Aromatic Biomarkers, Organosulfur Compounds and Diamondoids in Crude Oils by GC-MS/MS. Organic Geochemistry, Accepted.

- Bissada, K. K., Tan, J. Q., Szymczyk, E. B., Darnell, L. M., Mei, M., 2016. Group-type characterization of crude oil and bitumen. Part I: Enhanced separation and quantification of saturates, aromatics, resins and asphaltenes (SARA). *Organic Geochemistry* 95, 21-28.
- Bissada, K. K., Tan, J. Q., Szymczyk, E. B., Darnell, L. M., Mei, M., 2016. Group-type characterization of crude oil and bitumen. Part II: Efficient separation and quantification of normal-paraffins iso-paraffins and naphthenes (PIN). *Fuel* 173, 217-221.
- Pernia, D., Bissada, K. K., Curiale, J., 2015. Kerogen based characterization of major gas shales: Effects of kerogen fractionation, *Organic Geochemistry* 78, 52-61.
- Banga, T., Capuano, R.M., Bissada, K.K., 2011. Petroleum generation in the SE Texas Basin- Implications to hydrocarbon occurrence at the S. Liberty salt dome: *AAPG Bulletin* 95, 1257-1291.
- Ibrahimov, R. A., Bissada, K. K., 2010. Comparative analysis and geological significance of kerogen isolated using open-system (palynological) versus chemically and volumetrically conservative closed-system methods. *Organic Geochemistry* 41, 800-811.
- Charrié-Duhaut, A., Connan, J., Darnell, M., Spangenberg, J., Szymczyk, E., Bissada, K. K., Albrecht, P., 2009. Molecular and isotopic characterization of organic samples from the wreck of the Saint-Etienne merchant ship (18th Century): Identification of pitch, fat, hair and sulfur. *Organic Geochemistry* 40, 647-665.
- Robison C. R., Elrod, L. W., Bissada, K. K., 1998. Petroleum generation, migration, and entrapment in the Zhu 1 depression, Pearl River Mouth basin, South China Sea. *International Journal of Coal Geology* 37, 155-178.
- Bissada, K. K., Elrod, L. W., Robison, C. R., Darnell, L. M., Szymczyk H. M., Trostle, J. L., 1993. Geochemical inversion - A modern approach to inferring source-rock identity from characteristics of accumulated oil and gas. *Energy Exploration & Exploitation* 11, 295-328.
- vanGijzel, Peter C. R., Smith, M. A., Bissada, K. K., Lerche, I., Liu, J. C., 1992. Thermal history modeling of the Georges Bank, U.S.A.: Thermal inversion of Transmittance Color Index (TCI) and Vitrinite Reflectance (VR) data. *Applied Geochemistry* 7, 135-143.
- Liu, J., Lerche, I., Bissada, K. K., Lacey, J., 1992. The Georges Bank Basin: A quantitative basin analysis study. *Terra Nova* 3, 70-83.
- Liu, J., Lerche, I., Bissada, K. K., Lacey, J., 1992. An end-member sensitivity analysis of vitrinite reflectance distributions for the COST G-2 well In the Georges Bank Basin. *Organic Geochemistry* 18, 385-396.
- Bissada, K. K., Katz, B. J., Barnicle, S. C., Schunk, D. J., 1990. On the origin of hydrocarbons in the Gulf of Mexico basin - A reappraisal in: *Gulf Coast Oils and Gases; Proceedings of the 9th Ann. Res. Conf., Gulf Coast SEPM Foundation*, 163-171.
- Bissada, K. K. 1981. Petroleum generation in Mesozoic sediments of the Moray Firth Basin, British North Sea. *Advances in organic geochemistry: proceedings of the 10th International Meeting on Organic Geochemistry, University of Bergen, Norway*, 7-15.
- Bissada, K. K., Johns, W. D., 1969. Montmorillonite-organic complexes -- Gas chromatographic determination of energies of interaction. *Clays and Clay Minerals* 17, 197-204.
- Bissada, K. K., Johns, W. D., Cheng, F. S., 1967. Cation-dipole interactions in clay-organic complexes. *Clay Minerals* 7, 155-166.

## **Patents**

- Mobile System for in situ acquisition of carbon isotope data on natural gas 08/13/2004  
Apparatus for continuous recovery of certain elements from a combustible liquid 08/25/1992