

## **Publication & Presentations:**

**Marek A. Domin**, Brian D. Steinberg, Jennifer M. Quimby, Natalie J. Smith, Allison K. Greene and Lawrence T. Scott. **Routine analysis and characterization of highly insoluble polycyclic aromatic compounds by direct analysis in real time mass spectrometry (DART)** *Analyst*, 2010  
DOI: [10.1039/b923300h](https://doi.org/10.1039/b923300h)

Smith, Natalie J.; **Domin, Marek A.**; Scott, Lawrence T. **HRMS directly from TLC Slides. A powerful tool for rapid analysis of organic mixtures.** *Organic Letters* (2008), 10(16), 3493-3496

Lo, Wayne; **Domin, Marek**; Rybak-Akimova, Elena V.; Armstrong, William H. **Modeling photosystem II with schiff-base manganese complexes.** Abstracts of Papers, 234th ACS National Meeting, Boston, MA, United States, August 19-23, 2007 (2007)

Herod, A. A.; Lazaro, M.-J.; Suelves, I.; Dubau, C.; Richaud, R.; Shearman, J.; Card, J.; Jones, A. R.; **Domin, M.**; Kandiyoti, R. **Size exclusion chromatography of soot and coal-derived materials with 1-methyl-2-pyrrolidinone as eluent: Observations on high molecular mass material.** *Energy & Fuels* (2000), 14(5), 1009-1020

Brady, Fergal J.; Cardin, David J.; **Domin, Mark**. **New organometallic complexes of buckminsterfullerene having  $\square$ -bonded nickel, palladium, or platinum with triorganophosphite ligands, and their characterization.** *Journal of Organometallic Chemistry* (1995), 491(1-2), 169-72

Herod, Alan A.; Johnson, Barry R.; Bartle, Keith D.; Carter, David M.; Cockedge, Mike J.; **Domin, Mark**; Kandiyoti, Rafael. **A reconciliation of mass ranges from matrix-assisted laser desorption/ionization mass spectrometry and size exclusion chromatography for coal-derived materials.** *Rapid Communications in Mass Spectrometry* (1995), 9(14), 1446-51.

Herod, A. A.; Zhang, S.-F.; Carter, D. M.; **Domin, M.**; Cockedge, M. J.; Parker, J. E.; Johnson, C. A. F.; John, P.; Smith, G. P.; et al. **Matrix-assisted laser desorption/ionization mass spectrometry of pitch fractions separated by planar chromatography.** *Rapid Communications in Mass Spectrometry* (1996), 10(2), 171-7.

Zhang, Sheng-Fu; Shearman, Jim R.; **Domin, Mark**; Lazaro, Maria-Jesus; Herod, Alan A.; Kandiyoti, Rafael. **Catalytic activity of fullerenes for hydrocracking coal extracts.** *Fuel* (1997), 76(3), 207-214.

**Domin, Mark**; Moreea, Ruksana; Lazaro, Maria-Jesus; Herod, Alan A.; Kandiyoti, Rafael. **Choice of extraction voltage and matrix in the matrix-assisted laser desorption/ionization time-of-flight mass spectrometry of coal tar pitch-pyridine insolubles.** *Rapid Communications in Mass Spectrometry* (1997), 11(6), 638-645.

**Domin, M.**; Li, Shang; Lazaro, M. J.; Herod, A. A.; Larsen, J. W.; Kandiyoti, R. **Large molecular mass materials in coal-derived liquids by  $^{252}\text{Cf}$ -plasma and matrix assisted laser desorption mass spectrometry.** *DGMK Tagungsbericht* (1997), 9704(Proceedings ICCS '97, Volume 3), 1501-1504.

**Domin, M.**; Moreea, R.; Lazaro, M. J.; Herod, A. A.; Kandiyoti, R. **Suppression of high molecular mass signal in the MALDI-MS of coal-derived liquids. Evidence from spectra of polystyrene standard mixtures.** *DGMK Tagungsbericht* (1997), 9704(Proceedings ICCS '97, Volume 3), 1533-1536.

Herod, A. A.; Lazaro, M.-J.; Rahman, M.; **Domin, M.**; Cocksedge, M. J.; Kandiyoti, R. **Matrix-assisted laser desorption/ionization time-of-flight mass spectrometry of kerogen extracts: effect of interactions between sample structure and matrix.** Rapid Communications in Mass Spectrometry (1997), 11(15), 1627-1634.

**Domin, Mark**; Moreea, R.; Lazaro, M.-J.; Herod, Alan A.; Kandiyoti, Rafael. **Effect of polydispersity on the characterization of coal-derived liquids by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry: inferences from results for mixtures of polystyrene molecular mass standards.** Rapid Communications in Mass Spectrometry (1997), 11(17), 1845-1852.

Lazaro, Maria-Jesus; Herod, Alan A.; Cocksedge, Mike; **Domin, Mark**; Kandiyoti, Rafael. **Molecular mass determinations in coal-derived liquids by MALDI mass spectrometry and size-exclusion chromatography.** Fuel (1997), 76(13), 1225-1233.

Welham, Kevin J.; **Domin, Mark A.**; Scannell, D. Eoin; Cohen, E.; Ashton, David S. **The characterization of micro-organisms by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry.** Rapid Communications in Mass Spectrometry (1998), 12(4), 176-180.

Welham, Kevin J.; **Domin, Mark A.**; Scannell, D. Eoin; Cohen, E.; Ashton, David S. **The rapid identification of intact microorganisms by matrix-assisted laser desorption/ionization-time of flight mass spectrometry.** Pharmacy and Pharmacology Communications (1998), 4(2), 81-87.

**Domin, M.**; Li, Shang; Lazaro, M.-J.; Herod, A. A.; Larsen, J. W.; Kandiyoti, R. **Large Molecular Mass Materials in Coal-Derived Liquids by  $^{252}\text{Cf}$ -Plasma and Matrix-Assisted Laser Desorption Mass Spectrometry.** Energy & Fuels (1998), 12(3), 485-492.

Johnson, Barry R.; Bartle, Keith D.; **Domin, Mark**; Herod, Alan A.; Kandiyoti, Rafael. **Absolute calibration of size exclusion chromatography for coal derivatives through MALDI-m.s.** Fuel (1998), 77(9/10), 933-945.

**Domin, Mark**; Welham, Kevin; Ashton, David. **Mass spectrometry as a tool for bacterial identification.** Journal of Pharmacy and Pharmacology (1998), 50(Suppl., British Pharmaceutical Conference 1998), 90.

Welham, Kevin J.; **Domin, Mark A.**; Scannell, D. Eoin; Cohen, E.; Ashton, David S. **The characterization of micro-organisms by matrix assisted laser desorption/ionisation-time of flight mass spectrometry.** Advances in Mass Spectrometry (1998),

**Domin, Mark A.**; Welham, Kevin J.; Ashton, David S. **The effect of solvent and matrix combinations on the analysis of bacteria by matrix-assisted laser desorption/ionization time-of-flight mass spectrometry.** Rapid Communications in Mass Spectrometry (1999), 13(4), 222-226.

Welham, Kevin J.; **Domin, Mark A.**; Ashton, David S. **Solvent and matrix combinations in the quality of matrix-assisted laser desorption/ionization-time of flight mass spectra obtained from microorganisms.** Pharmacy and Pharmacology Communications (1999), 5(2), 73-78.

**Domin, M.**; Herod, Alan; Kandiyoti, Rafael; Larsen, John W.; Lazaro, M-J.; Li, Shang; Rahimi, Parviz. **A comparative study of bitumen molecular weight distributions.** Energy & Fuels (1999), 13(3), 552-557.

Lazaro, M. J.; **Domin, M.**; Herod, A. A.; Kandiyoti, R. **Fractionation of a wood tar pitch by planar chromatography for the characterization of large molecular mass materials.** Journal of Chromatography, A (1999), 840(1), 107-115.

Lazaro, M. J.; Herod, A. A.; **Domin, M.**; Zhuo, Y.; Islas, C. A.; Kandiyoti, R. **Determining a "safe" high-mass limit in matrix-assisted laser desorption/ionization time-of-flight mass spectra of coal derived materials with reference to instrument noise.** Rapid Communications in Mass Spectrometry (1999), 13(14), 1401-1412.

Herod, A. A.; Lazaro, M.-J.; **Domin, M.**; Islas, C. A.; Kandiyoti, R. **Molecular mass distributions and structural characterisation of coal derived liquids.** Fuel (2000), 79(3-4), 323-337.

Welham, K. J.; **Domin, M. A.**; Johnson, K.; Jones, L.; Ashton, D. S. **Characterization of fungal spores by laser desorption/ionization time-of-flight mass spectrometry.** Rapid Communications in Mass Spectrometry (2000), 14(5), 307-310.

Welham, K. J.; **Domin, M. A.**; Johnson, K.; Jones, L.; Ashton, D. S. **Matrix-assisted laser-desorption/ionization time-of-flight mass spectrometry and its application to the analysis of fungal spores.** Pharmacy and Pharmacology Communications (2000), 6(3), 107-111.

Dimitrijevic, D.; Whitton, P. S.; **Domin, M.**; Welham, K.; Florence, A. T. **Increased vigabatrin entry into the brain by polysorbate 80 and sodium caprate.** Journal of Pharmacy and Pharmacology (2001), 53(2), 149-154.

**Domin, M.** & Herod, A. Presented at the 22<sup>nd</sup> British Mass Spectrometry Society Annual Conference at the University of Wales, Swansea 1996. MALDI-TOF Mass Spectrometry of polystyrene mixtures.

**Domin, M.**, Lazaro, M. J., Herod, A. & Kandiyoti, R. Presented at the 22<sup>nd</sup> British Mass Spectrometry Society Annual Conference at the University of Wales, Swansea 1996. Mass Spectrometry of high mass insoluble pitch fraction.

**Domin, M.**, Peachell, J. & Welham, K. Presented at the 22<sup>nd</sup> British Mass Spectrometry Society Annual Conference at the University of Wales, Swansea 1996. The use of crown ethers and cryptanes as desalting agents in MALDI-TOF mass spectrometry.

**Domin, M.**, Danks, T., Cunningham, I & Wan, N. Presented at the 22<sup>nd</sup> British Mass Spectrometry Society Annual Conference at the University of Wales, Swansea 1996. Analysis of N-cyanoguanidines by matrix assisted laser desorption.

Bartle, K., **Domin, M.**, Herod, A., Johnson, B. & Kandiyoti, R. Presented at the 8<sup>th</sup> International Conference of Coal Science in Oviedo, Spain 1995. Molecular mass distribution of coal products relevant to pyrolysis, liquefaction and combustion.

**Domin, M.**, Moreea, M., Lazaro, M. J., Herod, A. & Kandiyoti, R. Presented at the International Conference of Coal Science in Essen, Germany 1997. Suppression of high molecular mass signals in the MALDI-MS of coal derived liquids: Evidence from spectra of polystyrene standard mixtures.

**Domin, M.** Li, S., Lazaro, M. J., Herod, A., Larsen, J. & Kandiyoti, R. Presented at the International Conference of Coal Science in Essen, Germany 1997. Large molecular mass materials in coal derived liquids by  $^{252}\text{Cf}$ -plasma and matrix assisted-laser desorption mass spectrometry.

**Domin, M.**, Welham, K. & Ashton, D. Presented at the Royal Pharmaceutical Society Analysis Group Meeting in London, 1997. Analysis of whole micro-organisms by matrix-assisted laser desorption mass spectrometry.