

Materials List for:

Chemical Analysis of Water-accommodated Fractions of Crude Oil Spills Using TIMS-FT-ICR MS

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URL: <https://www.jove.com/video/55352>

DOI: [doi:10.3791/55352](https://doi.org/10.3791/55352)

Materials

Name	Company	Catalog Number	Comments
Reagents			
methylene chloride, Optima	Fisher Scientific	DS-151-4	Used as received
methanol, Optima LC/MS	Fisher Scientific	A456-4	Used as received
toluene, Optima	Fisher Scientific	T291-4	Used as received
Na ₂ SO ₄ , Granular, Anhydrous	Fisher Scientific	S415-212	Combusted at 450 °C/Stored at 105 °C
Crude oil	Various sources		
Instant Ocean®	Aquarium Systems	SS1200	33 ppt salinity with 0.45 µm pore filtration
Equipment			
Suntext XLS+	Atlas Chicalo III, USA		1,500 W xeon arc lamp, light intensity of 765 W/m ²
Atmospheric Pressure Laser Ionization	Bruker Daltonics Inc, MA		Note a 266 nm laser is used
TIMS-FT-ICR MS Instrument	Bruker Daltonics Inc, MA		The set up we had consisted of a 7 T magnet with an infinity cell
Software			
DataAnalysis 4.2	Bruker Daltonics Inc, MA		
Python 2.7			Requires Numpy, Scipy, Pandas, glob, oct2py, and os
Octave 4.0			