## Materials List for:

## The Preparation of Electrohydrodynamic Bridges from Polar Dielectric Liquids

Adam D. Wexler<sup>1</sup>, Mónica López Sáenz<sup>2</sup>, Oliver Schreer<sup>2</sup>, Jakob Woisetschläger<sup>3</sup>, Elmar C. Fuchs<sup>1</sup>

<sup>1</sup>Applied Water Physics, Wetsus - Centre of Excellence for Sustainable Water Technology

Correspondence to: Adam D. Wexler at Adam.Wexler@wetsus.nl

URL: https://www.jove.com/video/51819

DOI: doi:10.3791/51819

## **Materials**

Name	Company	Catalog Number	Comments
Borosilicate Crystallization Dishes	VWR	216-0064	
Double walled roundbottom flask with GL14 and GL8 openings along with 6 mm spherical joint port	LGS	SP757102a	Custom glassware with minimum two openings one for electrode, one for bridge spout.
Adjustable Platforms	Rudolf Grauer AG	Swiss Boy 115	
Motion Translation Stage	Thorlabs	MTS25/M-Z8E	Complete motorized stage, controller, and power supply
Insulating Plates			Should be appropriate for resisting the intended voltages without breakdown
Pt Electrodes	Alfa-Aesar	000261	Wash and then sonicate in 18.2 MΩ water prior to use
HVPS	FUG GmbH	HCP 350-65000	65 kV DC at 5 mA maximum output
Fiber Optic Temperature Probe System	OpSens	OTG-F Sensor/ XXX-XXX Control Unit	Readout speed 1 kHz, accuracy 0.01 K, probe size 120 µm
Long Wave Infrared Camera	IRCAM GmBH	Taurus 110K L	168 FPS 384 x 288 Sensitivity < 30 mK
Long Wave Infrared Camera	FLIR	FLIR 620	30 FPS 640 x 480 pixel Sensitivity to < 45 mK
Dual Band Mid- and Long-Wave Infrared Camera	IRCAM GmBH	Geminis 110k ML	
Digital Camera	Canon	550D	Used for both video and still frames
Tripod	Manfrotto	475B/405	
18.2 MΩ Water	Milli-Q	Advantage	Allow 24 hr to equilibrate after dispensing into clear borosilicate bottles
Methanol dehydrated with less than 0.0050% water AnalaR NORMAPUR	VWR-BDH	20856.296	Keep dry until needed
Glycerol anhydrous for synthesis	VWR - Merck Millipore	8.18709.1000	Keep dry until needed
Dimethylsulfoxide, ACS Grade	VWR-BDH	BDH1115-1LP	Keep dry until needed

<sup>&</sup>lt;sup>2</sup>IRCAM GmbH

<sup>&</sup>lt;sup>3</sup>Institute for Thermal Turbomachinery and Machine Dynamics, Graz University of Technology