



Measured Value	Method/Apparatus	Temperature °C	Material/Sample Size in mm/ml	Additional Information	Contact	Institute	e-mail	WWW
misc.	TGA/DTA/DSC (STA) with coupled FTIR, MS	- 120 ... 1600	solids, liquids, powders, pastes m < 5g	Mass change, caloric effects and evolved gas analysis (-120 °C to 1600 °C) Thermal decomposition (debinding, outgassing, etc.) Sample-gas reaction (redox-, hydration, sorption, etc.)	DI (FH) Daniel Lager, MSc / Dr.-Ing. Wolfgang Hohenauer	Austrian Institute of Technology	daniel.lager@ait.ac.at / wolfgang.hohenauer@ait.ac.at	http://www.ait.ac.at/en/research-fields/thermophysics/
misc.	heating microscope	RT ... 1300	solids, powders 3 x 3 x 3		Michael Brütting	Center for Applied Energy Research e.V.	michael.brueetting@cae-zerocarbon.de	www.cae-zerocarbon.de
misc.	thermogravimetry TG + simultaneous DSC (DTA)	RT ... 1500	solids, powders, pastes, melts, liquids Ø: 7 h: 7 m: 500mg		Michael Brütting	Center for Applied Energy Research e.V.	michael.brueetting@cae-zerocarbon.de	www.cae-zerocarbon.de
misc.	speed of sound pulse-echo-apparatus	0 ... 250	liquids	up to 100 MPa	Prof. Dr. Stephan Kabelac	HSU Hamburg	kabelac@hsu-hh.de	www.hsu-hh.de/thermodynamik
misc.	electrical resistivity by pulse heating	RT ... 1500	solids Ø: 4 h: 50		Dr. Erhard Kaschnitz	Österreichisches Gießerei-Institut	erhard.kaschnitz@ogi.at	www.ogi.at
misc.	thermogravimetry TG + simultaneous DSC (DTA)	RT ... 1500	powder, pastes m: 0.1 ... 10 g	air, argon ...	Alois Triessnig Gerhard Urbanek	RHI AG TC-Leoben	alois.triessnig@rhi-ag.com / gerhard.urbanek@rhi-ag.com	www.rhi-ag.com
misc.	simultaneous thermogravimetry - differential thermal analysis - evolved gas analysis with MS and FTIR, Seebeck coefficient and electrical conductivity, Benetzungsverhalten, Infiltration, Thermoschockparameter	-160 ... 2000	solids, powders, liquids Ø: 4 ... 55 h: 1 ... 55	gas transfer via skimmer coupling, orifice or capillary system, weighted sample 1mg ... 500g, kinetic analysis	Dr. Tim Gestrich	Fraunhofer IKTS Dresden	Tim.Gestrich@ikts.fraunhofer.de	www.ikts.fraunhofer.de
misc.	Seebeck coefficient and electrical conductivity	RT ... 1000	solids		Jan König	Fraunhofer IPM	jan.koenig@ipm.fraunhofer.de	www.ipm.fraunhofer.de
misc.	Seebeck coefficient and electrical conductivity	RT ... 400	thin films		Jan König	Fraunhofer IPM	jan.koenig@ipm.fraunhofer.de	www.ipm.fraunhofer.de
misc.	Fluid-fluid miscibility Viscosity Desity Vapor pressure, etc.	-60 ... 90°	liquids	up to 100 bar	Dr. Steffen Feja	ILK Dresden gGmbH	steffen.feja@ilkdresden.de	www.ilkdresden.de
misc.	Fluid-fluid miscibility, density, viscosity vapor pressure	-40 ... 90	liquids	pressure 0..100 bar	Dr. Steffen Feja	ILK Dresden gGmbH	steffen.feja@ilkdresden.de	www.ilkdresden.de



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Force, temperature, thermal expansion	Gleeble	RT ... liquefied material	Every conducting material Various sample sizes (sheet metal, round stock, square bar material,...)	CCT Diagramm Hot tensile test, uniaxial compression test, Welding Process Simulation, thermal fatigue, thermal/mechanical fatigue	Dr. Dirk Helm	Fraunhofer Institut für Werkstoffmechanik IWM	dirk.helm@iwm.fraunhofer.de	www.iwm.fraunhofer.de
misc.	thermogravimetry (TGA), micro- and macro-TGA	RT ... 1000	solids, powders, pastes	atmosphere: N2, air	Dr. Alfred Chodura	SGL CARBON GmbH	alfred.chodura@sglgroup.com	www.sglgroup.com
misc.	thermogravimetry (TGA) combined with evolved gas analysis by GC/MS and/or FTIR	RT ... 1000	solids, powders, pastes		Dr. Alfred Chodura	SGL CARBON GmbH	alfred.chodura@sglgroup.com	www.sglgroup.com
misc.	Viscosity	RT ... 250	pastes, liquids	plate-plate viscosimeter	Dr. Alfred Chodura	SGL CARBON GmbH	alfred.chodura@sglgroup.com	www.sglgroup.com
misc.	specific electric resistivity - current-voltage methode	RT ... 2000	solids l: 110 thickness: 8-20	inert gas	Dr. Marcus Franz Birgit Tartler	SGL Carbon GmbH	Marcus.Franz@sglgroup.com Birgit.Tartler@sglgroup.com	www.sglgroup.com
misc.	mechanical test - bending test, tensile test, compressive test	RT ... 1900	solids	inert gas	Dr. Marcus Franz Birgit Tartler	SGL Carbon GmbH	Marcus.Franz@sglgroup.com Birgit.Tartler@sglgroup.com	www.sglgroup.com
misc.	STA; thermogravimetry TG + simultaneous DSC (DTA), FTIR, MS	40 ... 1600 or 40 ... 1400	solids, powders, pastes, liquids...	gas transfer via skimmer coupling or capillary system, atmosphere: air, inert gas, vacuum	Dr. Diana Neubert	thyssenkrupp Steel Europe AG	diana.neubert@thyssenkrupp.com	www.thyssenkrupp-steel.com
misc.	Seebeck coefficient and electrical conductivity	RT ... 1000	solids		Dr. André Lindemann	Netzsch Gerätebau	andre.lindemann@netzsch.com	www.netzsch.com
misc.	DSC-TG / STA (DTA-TG) and FTIR Tensor II	RT ... 1350	solids, powders, pasts: 85µl, Ø<5mm, h<3mm; STA: 0,3ml..1,5ml	FTIR gas analysis during: thermal chemical reaction Air and Nitrogen	Alexander Eppner	IAB Institut für Angewandte Bauforschung Weimar gGmbH	a.eppner@iab-weimar.de	www.iab-weimar.de
misc.	thermogravimetry TG + simultaneous DSC (DTA), FTIR, MS	30 ... 1100	solids, powders, pasts, melts, liquids, m: < 5g	FTIR, MS material transition phenomena melts, liquids, solidifaction & densifaction chemical reaction analysis process thermokinetic	Dipl.-Ing. (FH) Michèle Marson-Pahle	IKV an der RWTH Aachen	michele.marson-pahle@ikv.rwth-aachen.de	www.ikv-aachen.de
misc.	DTA-TGA	RT...1500	solids, powders, liquids m: 500 mg	in air	Dr. Christoph Groß	SCHOTT AG Mainz	christoph1.gross@schott.com	www.schott.com
viscosity	beam bending viscosimetry (e.g. Temp at 1013 dPas, 1013,2 dPas, 1014,7 dPas)	375...950 (1300)	solid piece: 10x10x50 cm3	in air	Dr. Christoph Groß	SCHOTT AG Mainz	christoph1.gross@schott.com	www.schott.com
viscosity	fibre elongation viscosimetry (e.g. Temp at 107,6 dPas)	300...1300	solid piece: 10x10x50 cm3	in air	Dr. Christoph Groß	SCHOTT AG Mainz	christoph1.gross@schott.com	www.schott.com



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viscosity	rotation viscosimetry (e.g. Temp at 104 dPas)	550...1650 (1750)	approx 100 cm ³	in air	Dr. Christoph Groß	SCHOTT AG Mainz	christoph1.gross@schott.com	www.schott.com
viscosity	viscosity curve (10-1 dPas - 1013,5 dPas)	375...1650 (1750)	as above	in air	Dr. Christoph Groß	SCHOTT AG Mainz	christoph1.gross@schott.com	www.schott.com
temp. dependent transmission	temperature dependence of UV-VIS-NIR transmission	RT...1100	solid piece Ø: 12 mm	in air 250 nm - 2500 nm	Dr. Romeo Donfeu Tchana	SCHOTT AG Mainz	romeo1.donfeu@schott.com	www.schott.com
thermo-optical measurements	thermogravimetry, contact angle, shrinkage, adhesion, thermal shock, thermal cycling, creep, compression	RT ... 2200	solids, powders, pastes, melts, fibers Ø: 6 .. 30 h: 5 ... 30	atmosphere: air, inert gas, vacuum, hydrogen	DI (FH) Jens Baber	Fraunhofer ISC - Zentrum HTL	jens.baber@isc.fraunhofer.de	www.htl.fraunhofer.de