

ID	Project Title	PI	Inst.	Methods	Funding
P1	Temperature dependence of band gaps and thermal transport	Scheffler	NOMAD Laboratory	Ab-initio MD w\ anharmonicity	FHI
P2X	Thermal and thermo-/electrical transport processes	Fischer	HUB	Thermoel.transpt.experiments	GraFOxII
P3	Excitations in $\text{III}_2\text{O}_3$ : impact of electron-vibrational coupling	Draxl	HUB	Ab-initio theory	GraFOxII
P4X	Elementary optical excitations in oxides	Goldhahn, Feneberg/Wagner	UM/TUB	spectr. Ellipsometry/PLE	GraFOxII/TUB
P5	Mapping electronic structure, potential, band bending at interfaces	Koch	HUB	TEM EELS + inline e-holography	GraFOxII
P6X	Analysis of phase diagrams and metastability of oxide solid solutions	Albrecht	IKZ	In-situ TEM	GraFOxII
P7	Structural and electronic properties of alloys and heterostructures	Ramsteiner	PDI	Micro Raman	GraFOxII
P8D	$\text{Ga}_2\text{O}_3$ -based memristive devices	Deshpande, Dubourdieu	HZB	Processing, I(V)	GraFOxII
P9	Point defects control in $\text{Ga}_2\text{O}_3$ thin films grown via molecular beam epitaxy	Wagner	TUB	Raman scattering	DFG
P10	$\text{BaSnO}_3$ based heterostructures for electronic applications	Draxl	HUB	Ab-initio theory	Leibniz
P11	$\text{BaSnO}_3$ based heterostructures for electronic applications	Albrecht	IKZ	TEM	Leibniz
P12	In-situ studies of memristors	Albrecht	IKZ	In-situ TEM	GraFOxII
G1X	Bulk Growth of TCOs and Complex Oxides	Bickermann	IKZ	Melt growth	GraFOxII
G2	Unbiased determination of surface reconstructions	Scheffler/Draxl	FHI/HUB	MD	GraFOxII
G3P	In-situ XRD of strain, phase formation, and surface reconstructions	Hanke	PDI	MBE + in-situ XRD + RHEED	GraFOxII
G4	Ab initio study of the MBE growth of group-III oxides	Scheffler/Draxl	FHI/HUB	KMC + ab-initio parameters	GraFOxII
G5X	Metastable $\text{III}_2\text{O}_3$ alloys, deep acceptor-doping, and p-type oxides	Bierwagen	PDI	MBE	GraFOxII
G6X	Combinatorial PLD of oxide solid solutions	v. Wenckstern, Grundmann	UL	Combinatorial PLD	GraFOxII
G7	Semiconducting or insulating amorphous and epitaxial $\text{Ga}_2\text{O}_3$	Dubourdieu, Deshpande	HZB	ALD	GraFOxII
G8D	Growth of complex oxides for resistive switching	Schwarzkopf	IKZ	MOCVD	GraFOxII
G9D	Influence of surface adsorbates on the electronic system of $\text{III}_2\text{V}_2\text{O}_3$	Dähne	TUB	STM/STS	TUB
G10	$\text{BaSnO}_3$ based heterostructures for electronic applications	Dähne	TUB	STM/STS	Leibniz
G11	$\text{BaSnO}_3$ based heterostructures for electronic applications	Bierwagen	PDI	MBE	Leibniz
G12	$\text{BaSnO}_3$ based heterostructures for electronic applications	Schwarzkopf	IKZ	MOCVD, PLD	Leibniz
G13	Point defects control in $\text{Ga}_2\text{O}_3$ thin films grown via molecular beam epitaxy	Bierwagen, Mazzolini	PDI	MBE	DFG
D1	GoNext: Vertical $\text{Ga}_2\text{O}_3$ -high voltage devices	Tetzner, Würfl	FHB	Device processing and test	BMBF
D1G1	GoNext: Bulk growth of highly Si-doped $\text{Ga}_2\text{O}_3$	Bickermann	IKZ	Melt growth	BMBF
D1G2	GoNext: Growth of thick $\text{Ga}_2\text{O}_3$ layers with low impurity concentr.	Popp	IKZ	MOVPE	BMBF
D1P	GoNext: Point defects and electrical transport	Irmscher	IKZ	DLTS, CV/IV, Hall	BMBF
D2P	Characterization of midgap trap states in alloys and heterostructures	Masselink, Hatami	HUB	Deep level noise spectr.	GraFOxII
D3G	Dielectrics ( $\text{HfO}_2$ , $\text{ZrO}_2$ , $\text{HfZrO}$ , $\text{Ga}_2\text{O}_3$ , $\text{Al}_2\text{O}_3$ , ...) for electronic devices	Dubourdieu, Deshpande	HZB	PE-ALD, Annealing	GraFOxII
D4	Fabrication and characterization of UVC photo detectors	v. Wenckstern, Grundmann	UL	Processing, I(V), spectr.	UL
D5	Fundamentals of Metal Oxides as Chemoresistive Gas Sensors	Barsan/Bierwagen	UT/PDI	In-operando I(V), IR spectr./MBE	UT/PDI