

DRESDEN SCIENCE NIGHT 2023



June 30, 2023

Entry: Hohe Straße 6

Also at the IPF-Campus



TECHNISCHE
UNIVERSITÄT
DRESDEN

Institute of Materials Science (IfWW)
Institute of Textile Machinery and High Performance
Material Technology (ITM)

	Title	Building	Floor	Room
	Lectures			
20:00	Science Slam: Polymer & Medicine	H	2nd floor	
	Open labs and pilot plants – admittance 17:00 to 23:30			
1	Little balls fighting dirt Pollutans in water: separation and degradation	W	Ground floor	1
2	Wrinkles – not only a question of age Wrinkled surfaces, e.g. for antibacterial functions or reduction of friction	W	Basement	19
3	When wounds don't heal How biomaterials support the healing process	B	2nd floor	216
4	On the pulse of time Innovative materials for blood compatibility	B	2nd floor	211
5	Point-of-care diagnostics Surveillance and control of infectious diseases	B	Ground floor	lobby
6	From fruit to DNA Extracting the secrets of life in the kitchen	B	Ground floor	lobby
TUD/ IfWW	Of bone eaters, Carius and Bactus A short history of biomaterials research	B	1st floor	117
7	Separation made easy Filtration membranes for water treatment Experience membrane preparation and try it yourself	L	Ground floor	11
8	Red gold Why is gold red, when it occurs as nanoparticles? And how do you use such nanoparticles for future optical computers?	L	Ground floor	11

9	Fascination is in the details Light microscopy	T	Ground floor	5
10	HappyMetal – From hormone to chrome Nature concepts for plastic metallization	T	Ground floor	8
11	Plastic vs. light saber We show laser treatment of plastic materials	T	Ground floor	10
12	Plastics brought into shape This is how plastics processing works: injection molding and additive manufacturing	T	Ground floor	hall
13	Accelerated electrons for tailor-made materials Materials development in the age of sustainability	P	Ground floor	4c
14	Smart embroidery High-tech structures from implants to aircraft	P	Ground floor	6
15	Get the juice out of the sun! Solar cells from natural dyes - simple experiments show the principle	P	Ground floor	1/2
16	What plastic can withstand! Mechanical characterization of polymer materials	H	2nd floor	216
17	Microplastics in the environment and in food Identification of microplastics with a combination of optical microscopy and FTIR and Raman spectroscopy in water, in soil, in air and in food	H	2nd floor	211/213
18	Molecules in competition Simple or complex? Determination of the composition of mixtures by chromatography. Hands-on experiments for young and old	H	2nd floor	224
19	Nano, smart and helpful - nanotechnological material innovations Polymer brush coatings for self-cleaning and sensory surfaces and nanoparticles for therapies against cancer & How dialysis membranes work - Experiment for children presented by B. Braun Avitum Saxonia GmbH	H	1st floor	126
20	The path to a digital twin in plastics processing Insights into our innovative digital materials factory	H	Ground floor	11
21	From a yogurt cup to a sock Recycling and melt spinning	H	Ground floor	11
TUD/ ITM	State-of-the-art 3D scanners & 4D scanners for virtual product development in clothing technology	H	1. OG	132



Further Activities

17:00- 24:00	Apprenticeship at the IPF Career opportunities: Chemical laboratory technician and process mechanic for plastics and rubber technology – Get informed and in touch	B	Ground floor	lobby
from 17:00	Experiments for children to participate in and do themselves Polymer synthesis and physics at your fingertips	B	Ground floor	1
17:00- 24:00	Show Room Surface structuring using microfolds, Structure simulation in plastics technology, Optimised lightweight clinching tool, etc.	H	1st floor	lobby
17:00- 24:00	SciArt Exhibition Introduction of Polymer Science Language to Broader Chemical Community throBasement Arts	H	Ground floor	lobby and floor
17:00- 24:00	Androgyn-Mobil Opportunities to visit the art installation at the interior facade (mentioned in a book about 111 must-see places in Dresden)	B	Facade	courtyard
17:00- 24:00	Quiz	H	Ground floor	lobby
18:00- 22:00	Live Music Guitar music from pop to jazz with Frank & Michael (IPF coworkers)			courtyard
17:00- 23:00	Beer Garden			courtyard
from 17:00	Cake Bazaar			courtyard