

# MiTeGen

## Innovation in Crystallography



- ▶ *Highest performance crystal mounts/loops*
- ▶ *SPINE standard magnetic cryovials*
- ▶ *Regular, barcoded and reusable goniometer bases*
- ▶ *Tools for high-throughput room-temperature diffraction screening*



IFTA AG  
Certified QMS according to  
DIN EN ISO 9001  
Reg. No. IC 03214 034

*MiTeGen* 



Jena Bioscience

Jena Bioscience GmbH was founded in 1998 by a team of scientists from the Max-Planck-Institute for Molecular Physiology in Dortmund. 25+ years of academic know how were condensed into the company in order to develop innovative reagents and technologies for the life science market.

Since the start up, the company has evolved into an established global reagent supplier with more than 6500 products on stock and > 3000 customers in 50+ countries. Jena Bioscience serves three major client groups:

Our company premises are located in the city of Jena / Germany with a subsidiary in Teltow, in the vicinity of the German capital Berlin.



Jena Bioscience's products include nucleosides, nucleotides and their non-natural analogs, recombinant proteins & protein production systems, reagents for the crystallization of biological macromolecules and tailor-made solutions for molecular biology and biochemistry.

In our chemistry division, we have hundreds of natural and modified nucleotides available on stock. In addition, with our pre-made building blocks and in-house expertise we manufacture even the most exotic nucleotide analog from mg to kg scale.

In the field of recombinant protein production, Jena Bioscience has developed its proprietary LEXSY technology. LEXSY (*Leishmania* Expression System) is based on a S1-classified unicellular organism that combines easy handling with a full eukaryotic protein folding and modification machinery including mammalian-like glycosylation. LEXSY is primarily used for the expression of proteins that are expressed at low yields or are inactive in the established systems, and expression levels of up to 500 mg/L of culture were achieved.

For the crystallization of biological macromolecules – which is the bottle-neck in determining the 3D-structure of most proteins – we offer reagents and tools for crystal screening, crystal optimization and phasing that can reduce the time for obtaining a high resolution protein structure from several years to a few days.

Our specialized reagents are complemented with a large selection of products for any molecular biology & biochemistry laboratory such as kits for Standard PCR and Real-Time PCR, fluorescent probes, oligonucleotides, cloning enzymes, mutagenesis technologies, and many more...

We combine highest quality standards for all our products (certified according to DIN EN ISO 9001) with individualized customer support. We establish direct lines of communication from clients to our in-house scientists, resulting in productive interactions among people with similar research interests who speak the same language. Furthermore, we offer support programs and attractive discount schemes for young scientists establishing their own labs. If you wish to receive more information, just send an e-mail to [info@jenabioscience.com](mailto:info@jenabioscience.com).

## Imprint

### Design and Layout by:

timespin - Digital Communication GmbH  
Sophienstrasse 1, 07743 Jena  
[www.timespin.de](http://www.timespin.de)

### Copyright:

Please contact Jena Bioscience if you want to use texts and/or images in any format or media.



# Table of Contents

<b>Crystal Retrieval &amp; Mounting</b>	<b>4</b>
<i>Dual-Thickness (DT) MicroMounts™</i>	4
<i>Dual-Thickness (DT) MicroCrystal Mounts™</i>	4
<i>Dual-Thickness (DT) MicroLoops™</i>	4
<i>Dual-Thickness (DT) MicroLoops LD™</i>	4
<i>MicroLoops E™</i>	4
<i>MicroMeshes™</i>	4
<i>MicroMeshes SH™</i>	5
<i>Indexed MicroMeshes™</i>	5
<i>MicroGrippers™</i>	5
<i>Angled Tip Option</i>	5
<i>Mount Selection Guide</i>	5
<b>Sample Manipulation and Measurement</b>	<b>6</b>
<i>MicroTools™</i>	6
<b>Goniometer Bases (Caps)</b>	<b>6</b>
<i>Standard Goniometer Bases</i>	6
<i>Barcoded Goniometer Bases</i>	6
<i>Reusable Goniometer Bases</i>	6
<i>Goniometer Base B4</i>	6
<b>Cryo and Room Temperature Crystallography</b>	<b>7</b>
<i>Goniometer Head Adapter</i>	7
<i>Magnetic CryoVials</i>	7
<i>Mount-Base-Vial-Assemblies</i>	7
<i>Crystal Dehydration and Salvage Kit</i>	7
<i>MicroRT™ System</i>	7
<i>MicroRT™ Aligner</i>	7
<i>LV CryoOil™</i>	7
<i>NVH Oil</i>	7
<i>Apiezon N</i>	7
<b>Crystallography Starter Kits</b>	<b>8</b>
<i>MicroRT™ Room Temperature Starter Kit</i>	8
<i>Protein Crystallography Starter Kit™</i>	8
<i>Small Molecule Crystallography Starter Kit™</i>	8
<b>Accessories</b>	<b>8</b>
<i>Liquid Wicks</i>	8
<i>Serrated End Tweezers</i>	8
<i>Pin Cutters</i>	8
<b>Selected Literature Citations</b>	<b>9</b>

## Crystal Retrieval & Mounting

MicroMounts™ and MicroLoops™ are used in much the same way as nylon loop mounts and are much easier to handle than glass fibers and other mounting methods traditionally used in small-molecule crystallography.

They consist of a thin microfabricated polyimide film attached to a solid non-magnetic 0.64 mm stainless steel rod, which is compatible with all existing goniometer bases (caps) and mounting hardware. Their patented design provides an excellent combination of X-ray transparency, mechanical rigidity, flexibility and precision dimensions: The world's highest performance tools for retrieving and mounting protein crystals, virus crystals and small molecule/inorganic crystals.

All MicroMounts™, MicroLoops™, MicroMeshes™ and MicroGrippers™ are available in standard SPINE length (Cat.-No. L18SP) and other lengths (Cat.-No. L11, L19, L25) provided in a box of 20.

### Film Design

The polyimide film has low atomic number (Z) constituents and low density and produces less background scatter than e.g. nylon. It is optically transparent with an orange-gold hue.

The curvature of the film provides excellent stiffness even with very thin (10 µm) films and a convenient, scoop-like action in retrieving and handling samples.



Front View Side View

**Dual-Thickness (DT) MicroMounts™** have a thick, semi-rigid body and a thin, highly X-ray transparent crystal-receiving aperture. This dual thickness maximizes durability and rigidity, while maintaining the ultra-low X-ray background scatter that original MicroMounts™ are known for.

Aperture sizes: 10, 20, 30, 50, 75, 100, 150 and 200 µm

Cat.-No.: M2-L18SP-xx



**Dual-Thickness (DT) MicroLoops LD™** have a computer-optimized design with longer, thinner necks to minimize disturbance when inserted and withdrawn from small liquid drops. Thick polymer in the neck region makes these mounts rigid in e.g. a cold gas stream, and thin polymer in the loop region ensures the lowest possible background scatter in X-ray diffraction applications. The world's most advanced loop design.

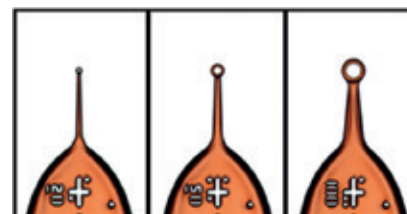
Aperture sizes: 20, 35, 50, 75, 100, 150, 200 and 300 µm

Cat.-No.: M5-L18SP-xxLD

Thin polymer minimizes background X-ray scatter.

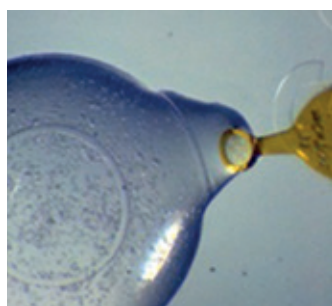


Thick polymer maximizes rigidity and stability.



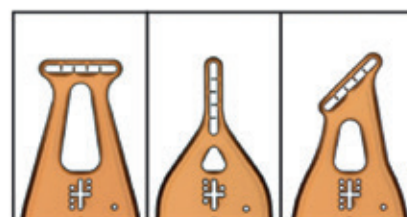
**Dual-Thickness (DT) MicroCrystal Mounts™** are specifically designed for crystals smaller than 20 µm and for micro-focus sources. Using dual-thickness technology, crystals are supported on a 3 micron thick film in a 10 micron thick frame. An aerodynamic design combined with a reduced tip length minimizes sample motion. MicroCrystal Mounts™ provide an unsurpassed combination of X-ray transparency and rigidity.

Cat.-No.: M4-L18SP-A1



**MicroLoops E™** with elongated apertures for needle or rod-shaped samples. The small fingers projecting into the aperture gently support your sample. Use inclined apertures to improve crystal orientation for the most efficient data collection.

Cat.-No.: M8-L18SP-xx



**Dual-Thickness (DT) MicroLoops™** provide a superior tool for retrieving and mounting small samples of all sorts including crystals, single cells and tissues. In protein and small molecule crystallography, they provide much lower background X-ray scatter than any other loop-style mount.

Aperture sizes: 50, 100, 150, 200, 300, 400, 500, 600, 800 and 1000 µm

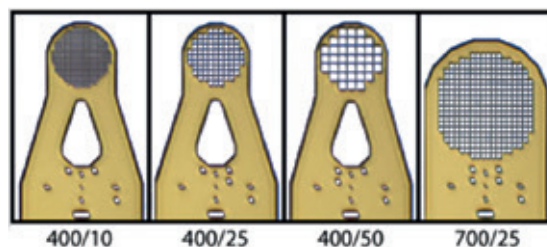
Cat.-No.: M5-L18SP-xx



**MicroMeshes™** are ideal for very small samples, allowing them to be sieved out of solution. They also provide continuous and delicate support for e.g. thin plates, rods and tissue samples.

Aperture sizes: Mesh filled apertures with diameters of 400 or 700 µm and mesh openings of 10, 25 and 50 µm

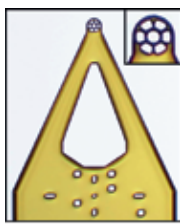
Cat.-No.: M3-L18SP-xx



**MicroMeshes SH™** fit entirely within the X-ray beam diameter typical of standard synchrotron beam lines and of focused laboratory sources, thus no alignment is necessary.

Aperture sizes: 80 µm diameter mesh area with 15 µm openings

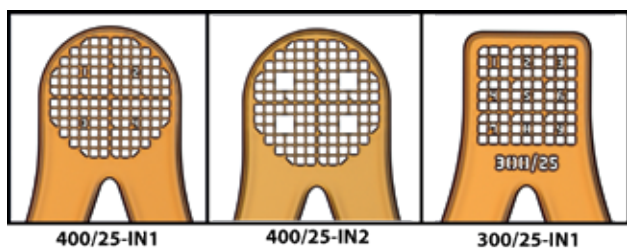
Cat.-No.: M3-L18SP-15



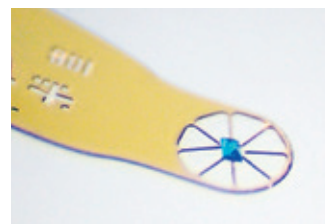
**Indexed MicroMeshes™** make it easier to locate (and then to relocate) a given sample.

Aperture sizes: 300 or 400 µm mesh areas with 25 µm openings

Cat.-No.: M3-L18SP-xx-INx



**MicroGrippers™** provide a new approach to retrieving and mounting samples. They can be used in two different ways. Slide the tip under your sample and the long thin flexible fingers provide the most delicate support possible. They are ideal for thin plates and other very fragile samples.



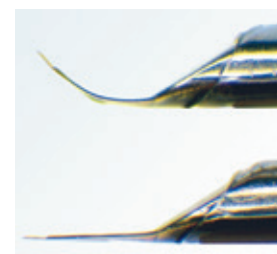
Alternatively, push the tip down onto a “chunky” sample and the fingers will delicately grip it without damaging it (yes, even for protein and virus crystals), holding it firmly in place. This positive gripping action is unique: all other mounting tools rely on liquid surface tension and adhesion forces to hold a sample in place. MicroGrippers™ allow “dry” samples to be mounted without the use of adhesives.

Aperture sizes: 50, 100, 200 and 300 µm

Cat.-No.: M7-L18SP-xx

**Angled Tip Option**

Some crystal morphologies regularly end up in non-optimum orientations. To provide a new level of crystal orientation control, angled-tip versions of all MicroMounts™, MicroLoops™ and MicroMeshes™ are offered. The tip is angled relative to the rod and the rotation axis by 45 or 90 degrees +/- 5 degrees. This ensures that the long-cell direction is always far from the incident X-ray beam direction for optimal data collection.

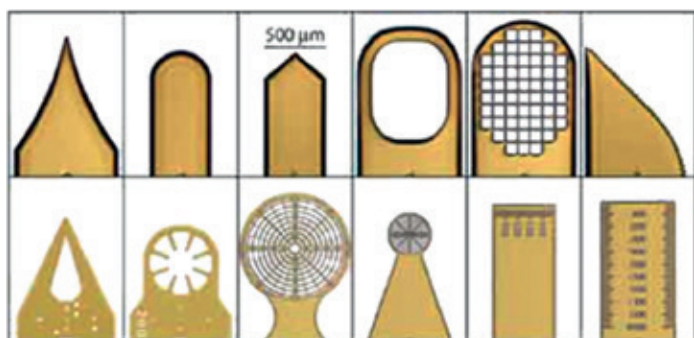


Cat.-No.: CA-45, CA-90

**Mount Selection Guide**

Style and Use	Typical Crystal Sizes (µm)	Mount design				Cat.-No.
		Aperture Sizes (µm)	Thickness			
			Aperture (µm)	Details & Labels (µm)	Body (µm)	
<b>Dual-Thickness MicroMounts™</b> General purpose mount with wicking aperture; for low background X-ray scatter from medium to small crystals.	10 – 300	10 – 200	~10	~10	~25	M2-Lxx-xx
<b>Dual-Thickness MicroLoops LD™</b> General purpose mount with long narrow neck for low drop disturbance during harvesting of medium to small crystals from small drops.	10 – 400	20 – 300	~ 10	~ 10	~ 25	M5-Lxx-xxLD
<b>Dual-Thickness MicroLoops™</b> General purpose, robust, economical sample mounts for medium to large crystals.	30 – 1500	50 – 1.000	~ 25	~ 10	~ 25	M5-Lxx-xx
<b>MicroLoops E™</b> Special purpose elliptical apertures for rod and needle shaped crystals	–	–		~ 12,5		M8-Lxx-xx
<b>Dual-Thickness MicroCrystal Mounts™</b> Special purpose Ultrathin membrane for easier visualization and ultra-low background X-ray scatter, for use with very small crystals.	< 20	–	~ 3	~ 3	~ 10	M4-L18SP-A1
<b>MicroMeshes™</b> Special purpose mesh filled apertures for plates, rods, and small microcrystals.	any	–		~ 10		M3-Lxx-xx
<b>MicroGrippers™</b> Special purpose, gentle support for thin plate-like samples and gripping action for robust samples.	50 – 300	50 – 300		~ 10		M7-Lxx-xx

## Sample Manipulation and Measurement



**MicroTools™** are used for manipulation and measurement of samples with sizes from a few micrometers to 1 mm. They are far less likely to damage fragile samples than metal microtools and are X-ray transparent.

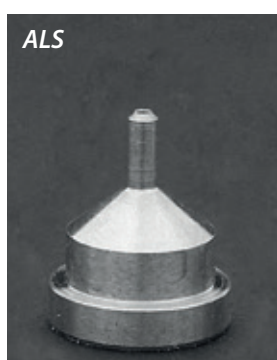
Cat.-No.: T1-L25-A1, T2-L25-A1, T3-L25-A1

## Goniometer Bases (Caps)

### Standard Goniometer Bases



Cat.-No.: GB-B1



Cat.-No.: GB-B1A



Cat.-No.: GB-B5



Cat.-No.: GB-B3



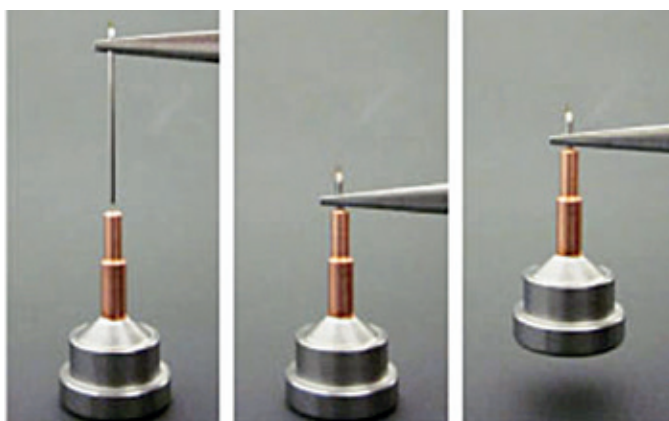
Cat.-No.: GB-B3S

All base styles are available as standard, barcoded and reusable goniometer bases.

### Reusable Goniometer Bases

No more gluing loops into bases, the patent-pending design grabs and securely holds MicroMounts™, MicroLoops™ and all other standard crystal loops without epoxy, glue or grease.

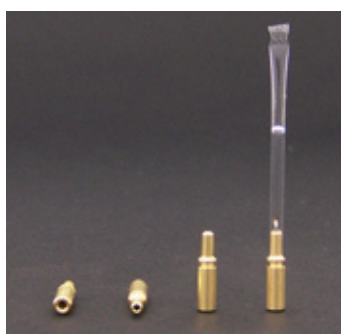
Cat.-No.: GB-xx-R, HT-GB-xx-R



### Barcoded Goniometer Bases

With laser engraved 2D and alphanumeric bar-code.

Cat.-No.: HT-GB-xx



### Goniometer Base B4

IUCr standard "brass pin" for small molecule crystallography:

Modified for use with MicroMounts™ and the MicroRT™ system, thus suitable for both room temperature and cryocrystallography applications.

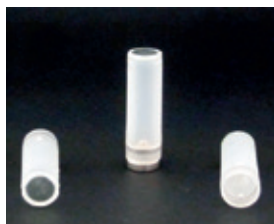
Cat.-No.: GB-B4

## Cryo and Room Temperature Crystallography



The **Goniometer Head Adapter** can be used to convert most goniometer heads to accept magnetic bases. This allows samples to be quickly mounted and dismantled from the goniometer.

Cat.-No.: GHA-1



**Magnetic CryoVials** are SPINE standard and correspond to all earlier cryovial designs. They are compatible with all commercial goniometer bases (except B4), with all cryovial handling tools and all automounters that require vials.

Cat.-No.: CV-xx

**Mount-Base-Vial-Assemblies** consist of your choice of goniometer bases (caps), your choice of crystal mounts/loops, pre-inserted into the base and magnetic CryoVials. They are ready for crystal mounting and data collection.

Each package contains 20 mount-base-vial assemblies.

Cat.-No.: A-Mx-xx-xx, HTA-Mx-xx-xx



### Crystal Dehydration and Salvage Kit

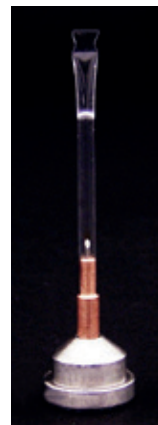
Dehydration remains a powerful tool for improving or at least modifying the diffraction properties of protein crystals. Dehydration removes excess solvent, tightens packing of protein molecules and reduces the size of solvent channels. As a result, it sometimes improves crystal order and diffraction resolution at room temperature and can make successful flash cooling easier, especially for crystals with large initial solvent contents.

Cat.-No.: CO-122



**Micro RT™ System** is the answer for room temperature diffraction screening and data collection. Go from a crystal in a drop to a crystal in the X-ray beam at room temperature quickly and easily. Collect room and low temperature data from the same crystal to evaluate your crystal and cryopreservation protocol.

Cat.-No.: RT-1



The **Micro RT™ Aligner** makes sliding the capillary tubing past your crystal and onto our goniometer bases a breeze. No need to use a microscope or magnifier and no worries about shaky hands causing you to bump your crystal.

Cat.-No.: RTA-1



**LV CryoOil™** is a low viscosity, low surface tension perfluoropolyether oil with extremely low vapor pressure, excellent chemical inertness and excellent thermal stability. It is ideal for cryoprotection and for protection against dehydration and oxidation, especially of very small crystals.

Cat.-No.: LVCO-1



**NVH Oil** is a very high viscosity oil suitable for room and variable-temperature diffraction measurements. Crystal motion during data collection is minimized, even when thick layers are used to prevent dehydration.

Cat.-No.: NVHO-1



**Apiezon N** is a silicon-free and halogen-free cryogenic vacuum grease that is widely recommended and recognized as the grease of choice in cryogenic applications.

Cat.-No.: APZN-1



## Crystallography Starter Kits

**MicroRT™ Room Temperature Starter Kit** has everything you need to get started preparing samples for room temperature screening.

Cat.-No.: RTSK-1



**Protein Crystallography Starter Kit™** has everything you need to mount and collect X-ray data from your crystals at both room temperature and at cryo temperatures.

Cat.-No.: CSK-2



**Small Molecule Crystallography Starter Kit™** has everything you need to mount and collect X-ray data from your small molecules at both room temperature and at cryo temperatures.

Cat.-No.: SMSK-1, SMSK-2



## Accessories



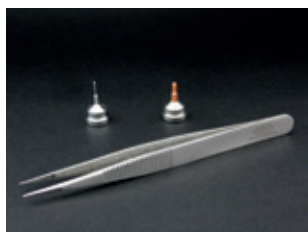
**Liquid Wicks** are ideal for delicately removing excess liquid from a sample, and for cleaning the polymer tips of Mitegen's tools. There are four sizes of wicks available: Size 15, extra fine (XF), fine (F) and medium (M).

Size 15 and Extra Fine (XF) wicks are ideal for removing liquid from around your crystal. Medium (M) and Fine (F) wicks may be used for cleaning the polymer tips of MicroMounts™, MicroMeshes™ and other tools.

Cat.-No.: W-15, W-XF, W-F, W-M

**Pin Cutters** for cutting hard/spring temper pins and rods. They provide accurate, burr-free cutting of MicroMount™, MicroLoop™, MicroMesh™ and MicroGripper™ pins.

Cat.-No.: PC-101



**Serrated End Tweezers** firmly grip the stainless steel pins of MicroMounts™, MicroLoops™, MicroMeshes™ and MicroGrippers™ without slipping. Ideal for inserting pins into reusable goniometer bases.

Cat.-No.: TW-1



## Selected Literature Citations

- Saraboji *et al.* (2012) The Carbohydrate-Binding Site in Galectin-3 Is Preorganized To Recognize a Sugarlike Framework of Oxygens: Ultra-High-Resolution Structures and Water Dynamics. *Biochemistry* **51(1)**:296
- Kraus *et al.* (2012) Reactions of Beryllium Halides in Liquid Ammonia: The Tetraammineberyllium Cation  $[\text{Be}(\text{NH}_3)_4]^+$ , its Hydrolysis Products, and the Action of  $\text{Be}^{2+}$  as a Fluoride-Ion Acceptor. *Chem. Eur. J.* **18(7)**:2131
- Theis *et al.* (2012) Zwitterionic and Anionic Multinuclear Pentacoordinate Silicon(IV) Complexes with Bridging (R,R)-Tartrato(4-) Ligands and  $\text{SiO}_5$  Skeletons: Synthesis and Reactivity in Aqueous Solution. *Chem. Eur. J.* **18(8)**:2202
- Marshall *et al.* (2012) The use of trimethylamine *N*-oxide as a primary precipitating agent and related methylamine osmolytes as cryoprotective agents for macromolecular crystallography. *Acta Cryst. D* **68**:69
- Warkentin *et al.* (2012) Global radiation damage at 300 and 260 K with dose rates approaching  $1 \text{ MGy s}^{-1}$ . *Acta Cryst. D* **68**:124
- Yaniv *et al.* (2012) Structure of CBM3b of the major cellulosomal scaffoldin subunit ScaA from *Acetivibrio cellulolyticus*. *Acta Cryst. F* **68**:8
- Dall *et al.* (2012) Activation of legumain involves proteolytic and conformational events, resulting in a context- and substrate-dependent activity profile. *Acta Cryst. F* **68**:24
- Wheeler *et al.* (2012) Measurement of the equilibrium relative humidity for common precipitant concentrations: facilitating controlled dehydration experiments. *Acta Cryst. F* **68**:111
- Hoffman (2012) Protein Crystallization for Structure-Based Drug Design. *Methods in Molecular Biology* **841**:67
- Bertke *et al.* (2012) Effects of the Alkali-Metal Cation Size on Molecular and Extended Structures: Formation of Coordination Polymers and Hybrid Materials in the Homologous Series  $[(4\text{-Et-C}_6\text{H}_4\text{OM})\text{(diox)}_n]$ ,  $M = \text{Li, Na, K, Rb, Cs}$ . *Inorg. Chem.* **51**:1020
- McMaster *et al.* (2012) Redox Non-innocence of Thioether Crowns: Elucidation of the Electronic Structure of the Mononuclear Pd(III) Complexes  $[\text{Pd}(\text{[9]aneS}_3)_2]^{3+}$  and  $[\text{Pd}(\text{[18]aneS}_6)]^{3+}$ . *Inorg. Chem.* **51**:1450
- Do *et al.* (2012) Evaluating the Identity and Diiron Core Transformations of a  $(\mu\text{-Oxo})\text{diiron(III)}$  Complex Supported by Electron-Rich Tris(pyridyl-2-methyl)amine Ligands. *Inorg. Chem.* **51**:2393
- Li *et al.* (2012) Rational Synthesis of  $[\text{Ge}_9\{\text{Si}(\text{SiMe}_3)_3\}]^-$  from Its Parent Zintl Ion  $\text{Ge}_9^{4-}$ . *Inorg. Chem.* **51**:2706
- Hruszkewycz *et al.* (2012) Mechanistic Studies of the Insertion of  $\text{CO}_2$  into Palladium(I) Bridging Allyl Dimers. *Organometallics* **31(1)**:470
- Onwudiwe *et al.* (2011) Synthesis, Characterization and Thermal Studies of Zn(II), Cd(II) and Hg(II) Complexes of *N*-Methyl-*N*-Phenyldithiocarbamate: The Single Crystal Structure of  $[(\text{C}_6\text{H}_5)(\text{CH}_3)\text{NCS}_2]_4\text{Hg}_2$ . *Int. J. Mol. Sci.* **12(3)**:1964
- Eichinger *et al.* (2011) Crystal structure of the sensory domain of *Escherichia coli* CadC, a member of the ToxR-like protein family. *Prot. Sci.* **20(4)**:656
- Rosenbaum *et al.* (2011) Structure and function of an irreversible agonist- $\beta$ 2 adrenoceptor complex. *Nature* **469**:236
- Abad-Zapatero *et al.* (2011) Humidity control can compensate for the damage induced in protein crystals by alien solutions. *Acta Cryst. F* **67**:1300
- Nippe *et al.* (2011) Group 6 Complexes with Iron and Zinc Heterometals: Understanding the Structural, Spectroscopic, and Electrochemical Properties of a Complete Series of  $\text{MM}\cdots\text{M}'$  Compounds. *Inorg. Chem.* **50(16)**:7650
- Zhou *et al.* (2011) A Highly Distorted Open-Shell Endohedral Zintl Cluster:  $[\text{Mn@Pb}_{12}]^{3-}$ . *Inorg. Chem.* **50(17)**:8028
- Gillett-Kunnath *et al.* (2011) Metal-Centered Deltahedral Zintl Ions: Synthesis of  $[\text{Ni@Sn}_9]^{4-}$  by Direct Extraction from Intermetallic Precursors and of the Vertex-Fused Dimer  $[\{\text{Ni@Sn}_8(\mu\text{-Ge})_{1/2}\}_2]^{4-}$ . *Inorg. Chem.* **50(22)**:11695
- Graham *et al.* (2011) The Effect of High Pressure on MOF-5: Guest-Induced Modification of Pore Size and Content at High Pressure. *Angew. Chem.* **123(47)**:11334
- Stepanova *et al.* (2011) Reactions of benzyldiphenylphosphine with Pd(II) sources on silica gel. *J. Organomet. Chem.* **696(20)**:3162
- Njua *et al.* (2011) Facile, aprotic degradation of  $v^5\text{-CpZrCl}_3\text{-dme}$  by ternary sodium/group 14 *tert*-butoxides: From  $v^5\text{-CpZrCl}_3\text{-dme}$  back to NaCp in two easy steps. *J. Organomet. Chem.* **696(21)**:3301
- Hernández-Sandoval *et al.* (2011) C–H and C–C bond activations of terminal alkynes in the presence of a butterfly-shaped heteronuclear  $\text{Ru}_3\text{Au}$  cluster. *J. Organomet. Chem.* **696(25)**:4070
- Takayama *et al.* (2011) A few low-frequency normal modes predominantly contribute to conformational responses of hen egg white lysozyme in the tetragonal crystal to variations of molecular packing controlled by environmental humidity. *Biophys. Chem.* **159(2-3)**:237
- Peuser *et al.* (2011)  $\text{CO}_2$  and Formate Complexes of Phosphine/Borane Frustrated Lewis Pairs. *Chem. Eur. J.* **17(35)**:9640
- Long *et al.* (2011) Aryl C–H Amination by Diruthenium Nitrides in the Solid State and in Solution at Room Temperature: Experimental and Computational Study of the Reaction Mechanism. *J. Am. Chem. Soc.* **133(33)**:13138
- Satam *et al.* (2011) Design, Synthesis and Cytotoxicity of Novel 3-Arylidenones Derived from Alicyclic Ketones. *Chemical Biology & Drug Design* **78(4)**:700
- Tanabe *et al.* (2011) Dinuclear Palladium and Platinum Complexes with Bridging Silylene Ligands. Preparation Using (Aminosilyl)boronic Ester as the Ligand Precursor and Their Reactions with Alkynes. *Organometallics* **30(15)**:3981
- Tahirov *et al.* (2010) Crystal structure of HIV-1 Tat complexed with human P-TEFb. *Nature* **465**:747
- Caffrey *et al.* (2009) Crystallizing membrane proteins using lipidic mesophases. *Nature Protocols* **4**:706
- Obita *et al.* (2007) Structural basis for selective recognition of ESCRT-III by the AAA ATPase Vps4. *Nature* **449**:735
- Coulibaly *et al.* (2007) The molecular organization of cypovirus polyhedral. *Nature* **446**:97

### Ordering

The following options are available for ordering products directly from Jena Bioscience:

- Mail orders
- Telephone orders
- 24 hour fax ordering
- Online ordering

Please provide the following information when ordering:

- Your name, name of institution
- Billing and shipping address
- PO number (if applicable)
- Catalog number of products and quantity needed
- Contact person and contact data for questions

#### Mail orders

Please send your mail orders to the following address:

Jena Bioscience GmbH  
Loebstedter Strasse 71  
07749 Jena, Germany

#### Telephone orders

We will accept telephone orders from Monday to Friday between 8:00 am and 16:00 pm Central European Time.

+49 – 3641 – 628 5000

#### 24 hour fax ordering

Please send your fax order to:

+49 – 3641 – 628 5100

#### Online ordering

Jena Bioscience products can be ordered online. When ordering by e-mail, please direct your orders to: [orders@jenabioscience.com](mailto:orders@jenabioscience.com)

Products can also be ordered online through our online shop. Go to <http://www.jenabioscience.com> and follow the instructions.

#### Important Notice:

*Products that have been ordered by mistake cannot be returned to Jena Bioscience. Products that are returned unrequestedly to Jena Bioscience will not be accepted, but fully charged to the customer's account.*

### Shipping

All customers will receive a fax confirmation of the order with invoice and shipping waybill number.

International orders are shipped either by General Overnight, by FedEx or by UPS Express service, depending on the customer's location and on the products to be shipped. Domestic shipments within Germany are sent by General Overnight Express service. If you wish your order to be shipped by a different carrier, please contact us and provide all necessary information with your order.

All orders are shipped EXW (Incoterms 2000). Please contact us if a different shipping term is required for your order.

### Prices and Charges

Please note that the prices of products in the catalog and on our website do not include freight charges, duties, taxes or customs fees.

Freight charges will be prepaid and added to the invoice. Freight charges for online orders are indicated when you check out of the online store. If you need information on freight charges for your particular order, please contact us with all necessary information.

Jena Bioscience will not pay any duties, taxes or customs fees.

Products and prices are subject to change without notice. Current pricing will be confirmed at the time of your order. No minimum order required.

### Payment

Invoices will be issued after your order has been shipped and will be sent to the billing address by separate mail. Invoices will not be included within the shipments. In case of partial deliveries, separate invoices will be issued after each shipment has left Jena Bioscience. You will find payment information (bank addresses and account data) on each invoice. Jena Bioscience accepts payment by:

#### Check

Please send your payment checks to the following address:

Jena Bioscience GmbH  
Loebstedter Strasse 71  
07749 Jena, Germany

We kindly ask you to make sure that our invoice number and your customer number appear on the check.

#### Wire transfer

Please remit your payments to one of the following bank accounts:

<i>Bayerische Hypo- und Vereinsbank AG Niederlassung Thüringen Schillerstrasse 4 07745 Jena, Germany</i>	<i>Account No.: 4196090 Bank code (BLZ): 83020087 IBAN: DE 05830200870004196090 SWIFT: HYVEDEMM463</i>
--	--

<i>Sparkasse Jena-Saale-Holzland Ludwig-Weimar-Gasse 5 07743 Jena, Germany</i>	<i>Account No.: 32417 Bank code (BLZ): 83053030 IBAN: DE 22830530300000032417</i>
--	---

#### Credit card

Jena Bioscience accepts the following credit cards:

- VISA
- Mastercard
- American Express



If you wish to pay by credit card, please provide the following credit card information:

- Card holder
- Card number
- Expiry date
- Security code (VISA / Mastercard: 3 digits, to be found on your card's back side in the upper right corner of the signature field; AmEx: usually 4 digits, to be found on the front side of your card above the card number)

### Patent Disclaimer

Unless explicitly stated, no license or immunity under any patent is either granted or implied by the sale of any of our products. Jena Bioscience does not warrant that the resale or use of its products delivered will not infringe the claims of any patent, trademark or copyright covering the use of the product itself or its use in the operation of any process. Furthermore, the purchaser assumes all risks of patent, trademark or copyright infringement associated with any such use, combination or operation.

Please copy this page, fill in your order and fax it to: **+49 - 3641- 628- 5100**

**Shipping address**

**Billing address**

Name	Customer number
University/Company	University/Company
Institute/Department	Institute/Department
Address	Address
Postcode	Postcode
City	City
Phone	VAT number (EEC only)
Fax	PO number
Email	Date/Signature

If you wish to pay by credit card, please provide the following credit card information:

I want to pay by


Card holder	Card number
Expiry date	Security code

(VISA / Mastercard: 3 digits on card's back side, upper right corner of signature field; AmEx: 4 digits, card's front side, above card number)

	Catalog number	Product	Quantity	Net Price per Item EURO	Net Price all Items EURO
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
				Total	



Jena Bioscience GmbH  
 Loebstedter Str. 71  
 07749 Jena  
 Germany

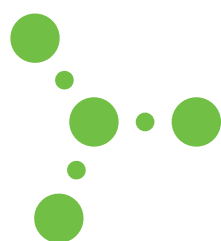
Phone +49 (0)3641-628-5000  
 Fax +49 (0)3641-628-5100  
 info@jenabioscience.com  
 www.jenabioscience.com

[www.jenabioscience.com](http://www.jenabioscience.com)



IFTA AG  
Certified QMS according to  
DIN EN ISO 9001  
Reg. No. IC 03214 034

Jena Bioscience GmbH  
Loebstedter Strasse 71  
D-07749 Jena  
Germany  
phone: +49-3641-6285 000  
fax: +49-3641-6285 100  
e-mail: [info@jenabioscience.com](mailto:info@jenabioscience.com)  
[www.jenabioscience.com](http://www.jenabioscience.com)



**Jena Bioscience**