



International Union of Geological Sciences (IUGS), Initiative on Forensic Geology (IFG)

Monthly Update and Information for IUGS E-Bulletin, December 2022

New ASTM International standard E3294, USA

The new ASTM International standard E3294 – 22 Standard Guide for Forensic Analysis of Geological Materials by Powder X-Ray Diffraction was placed on the Organization of Scientific Area Committees for Forensic Science (OSAC) Registry of approved standards in December 2022, and is publicized in the December 2022 OSAC standards Bulletin. This document was developed by the Geological Materials task group in OSAC.OSAC.

[OSAC Standards Bulletin - December 2022 | NIST](https://www.nist.gov/organization-scientific-area-committees-forensic-science/osac-registry)

[https://www.nist.gov/organization-scientific-area-committees-forensic-science/osac-registry.](https://www.nist.gov/organization-scientific-area-committees-forensic-science/osac-registry)

Geological Materials Trace Evidence Survey, USA

A survey on geological materials as trace evidence has been administered by Arizona State University, with input from the OSAC task group on Geological Materials. Forensic geologists and law enforcement are encouraged to take part in the survey:

<https://forms.gle/N6c2qdBWxPPgh2pd7>

PI Gwyneth Gordon at gwyneth.gordon@asu.edu.

Reference IRB study #00016934.

6th IberoAmerican Congress on Forensic Geology, Chile

IUGS-IFG announced the, '6th IberoAmerican Congress on Forensic Geology' will be held in Chile in 2024. Further details will follow when available.

Applications of hand held XRF and fake gold detection

The links below provide case examples of the use of hand held XRF to detect fake gold

<https://www.olympus-ims.com/en/insight/shining-like-a-diamond-or-rhinestone-identifying-precious-gems-with-xrf-analyzers/>

<https://www.olympus-ims.com/en/insight/spot-fake-bullion/>

<https://www.olympus-ims.com/en/applications/ut-testing-gold-bars/>

5th British-Finnish Geoscience Initiative and Finland British Embassy Meeting, Helsinki, Finland

On 13-14 December 2022, IUGS-IFG Chair and Officer for Scandinavia were invited to speak at the, '5th British-Finnish Geoscience Initiative'. They also met the British Ambassador, at the British Embassy and colleagues from the Finland Geological Survey (GTK), working on a project with IUGS-IFG for tracking and tracing precious minerals around the world, to prevent fraud and crimes.

<https://www.gtk.fi/en/this-is-gtk/>

6th Meeting on Minerals Related Crimes at the WCO Headquarters in Brussels, Belgium,

On 15-16 December, two IUGS-IFG Officers from South America were invited as speaker to attend the, '6th Meeting on Minerals Related Crimes' at the World Customs Office Headquarters in Brussels, Belgium, promoted by World Customs Organization AML/CTF. They spoke on problems of smuggling of diamonds and precious stones in Brazil.

Ancient Gold Theft, Bavaria, Germany

On 12 November, hundreds of ancient gold coins were stolen from the southern German Celtic Roman Museum in Manching in Bavaria. This comprised 483 Celtic coins and unworked gold (known as 'gold cake') dated from c100 BC. These were discovered during an archaeological dig near the present-day town of Manching in 1999. Interpol and Europol are undertaking investigations. If suspicious material is offered for sale, please contact the Bavarian State Criminal Police Office.

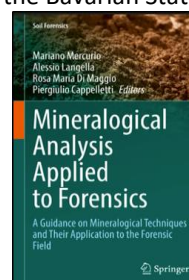
blka.sg622.soko-oppidum@polizei.bayern.de



Gold coins stolen in Bavaria, Germany (source: International Precious Metals Institute (IPMI) and the Bavarian State Criminal Police Office).

Mineralogical Analysis Applied to Forensics

The book 'Mineralogical Analysis Applied to Forensics' was firstly published online by Springer.



Mineralogical Analysis Applied to Forensics (source: Springer).