



ASTEE

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November 2021

ASTEE Newsletter

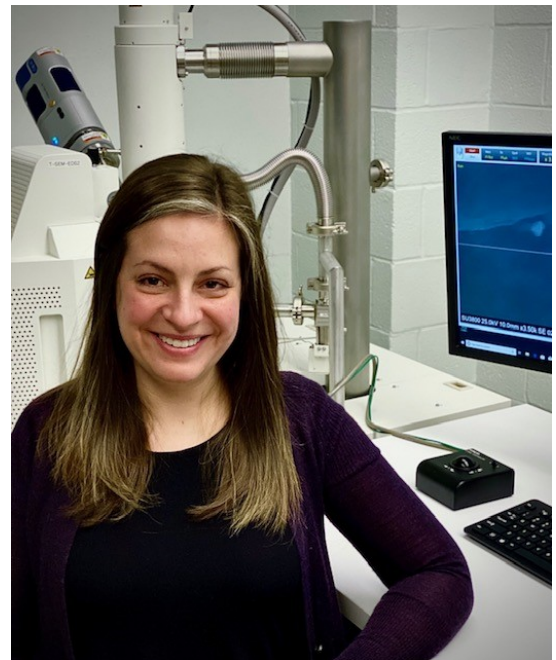
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Message from the President

ASTEE Members,

It is hard to believe 2021 is coming to a close. This year brought back some aspects of ASTEE that we missed in 2020. We were able to partner with the Mid-Atlantic Association of Forensic Scientists to co-host their annual meeting in September. At this in-person meeting, ASTEE members were able to engage with other trace examiners during the workshops (see photographs on page 10). ASTEE members also had the opportunity to take part in the trace workshops and presentations at the Midwestern Association of Forensic Scientists annual meeting in October. Both these meetings gave ASTEE members the opportunity to catch up with colleagues and friends as well as meet and network with new analysts.



ASTEE was able to continue the virtual webinars thanks to our Education Committee. This committee is already hard at work securing more training opportunities for members next year. The ASTEE Forum has also continued to be an invaluable tool for member discussions. This platform has grown and allowed trace topics and discussions to flourish.

With the holiday season quickly approaching and this being my final presidential

Message from the President continued...

message, I would like to take a minute to reflect and give thanks to all of those who have helped me this year. I would have never considered running if Katie Igowsky had not encouraged me with her kind words. This was something outside my comfort zone, so I cannot thank her enough for the initial push. The Board of Directors were nothing short of amazing and each individual truly plays such a vital role in this organization. The Committee Chairs showed their dedication and knowledge during each email discussion and teleconference. I would have been lost without each one of you. Lastly, what would an organization be without its members? Thank you for your commitment as ASTEE members as well as the Trace Evidence Community.

I have always been a proud ASTEE member but after serving as President, I am even more thankful and honored than I was before. I have no doubt that our 2022 President, Daniel Mabel, will continue to grow and inspire this amazing organization.

Sincerely,

Emily Weber

Emily Weber

2021 ASTEE President

Important Dates

December 1, 2021	ASTEE Student Research Award Application Deadline
February 17, 2022	ASTEE Scholarship Award Application Deadline
February 17, 2022	Webinar on Forensic Cosmetic Analysis (title TBA) hosted by RTI/FTCoE
February 21-25, 2022	The AAFS 2022 Annual Scientific Conference in Seattle, Washington
May 10-13, 2022	MAAFS Annual Meeting in Newport News, VA
July 31-August 6, 2022	IAI International Educational Conference in Omaha, Nebraska

ASTEE at a Glance – Committee Updates

Communications Committee

Have you registered for an account on the ASTEE Forum yet?? There have been a ton of new posts recently, and many great discussions happening about everything from proficiency testing to current trends in hair examination to microscope brand recommendations. There were five trace evidence jobs posted on the Forum in October alone, and hopefully more to come before the end of the year. The ASTEE Forum is the best way to stay connected to the rest of the trace evidence community; we encourage you to create an account, subscribe to email updates, and engage in topics that interest you!

<https://forum.asteetrace.org/register>.

ASTEE at a Glance – Committee Updates continued...

Bylaws and Administrative Rules Committee

Earlier this year it was discovered that the versions of the Bylaws and Administrative Rules linked on the website were outdated. They have since been updated to the current versions.

There was a recent question and subsequent interpretation related to what “accredited” meant with regard to student / faculty membership and the institution of higher learning they are affiliated with. References to an “accredited college or university” (Bylaws §2.2.5.3, 2.2.6.3, and 2.2.7) means that they are recognized by the U.S. Department of Education’s Office of Postsecondary Education as being an accredited institution. FEPAC specific accreditation is not required to be considered for membership.

Education Committee

The joint MAAFS/ASTEE conference in Poconos Manor, PA from September 21-24, 2021 was a success! There were nine eager students that attended Forensic Analysis of New and Emerging Fibers instructed by Kelly Brinsko Beckert from Microtrace. The day was spent learning about these new types of fibers and mounting various samples provided by Kelly. Fun was had by all!

We are pleased to announce a webinar on forensic cosmetic analysis (title TBA) given by Jeremy Morris hosted by RTI/FTCoE! This webinar will be held on Thursday, February 17, 2022 at 1 pm ET. Registration information to follow!

Be sure to visit the ASTEE member forum! We have been posting various journal articles, conference materials, and online resources for your enjoyment. Please post anything you would like to share with the membership! If you have any questions, please contact the committee at the e-mail listed below.

If you have ideas for potential webinars, you can recommend someone (including yourself) who may be able to offer a workshop or webinar, or you or your laboratory are interested in hosting a workshop (virtual or otherwise), please send an e-mail to astee.edu.committee@gmail.com.

Publications Committee

Newsletter

The Publications Committee is always looking for new content to share with ASTEE Members! Please send any ideas for ASTEE Newsletter content, including *News You Can Use* topics, to Kiersten Coffin (Kiersten.Coffin@dps.texas.gov).

JASTEE

We are excited to announce that the next issue of JASTEE is being prepared to be released! Thank you to the authors who have been patient with this process and the reviewers that put in the time to allow us to share the work of our colleagues. As always, JASTEE is seeking manuscripts for submission so that we can continue to share the wealth of knowledge of the Trace Evidence community. Please contact Journal Editor Heidi Prough (ProughH@michigan.gov) with submissions and/or questions.

ASTEE at a Glance – Committee Updates continued...

Elections Committee

2021 ASTEE Election was a great success! Congratulations to Mike Trimpe, Michelle Drake, and Dr. Tatiana Trejos! It is exciting to have so much experience on the board to support the trace community. Next year, we will be looking to fill the President Elect, Treasurer, and Director positions. It is a great way to get involved in the forensic community. If you are an Associate or Student member you are not eligible to be on the board so please consider updating your membership status if you qualify (see [ASTEE bylaws](#)). Please contact the ASTEE membership chair Stephanie Freiwald (Stephanie.Freiwald@dps.texas.gov) with any questions.

A huge thank you to those board members that will be stepping down. Your service to ASTEE not only strengthened this organization but also furthered Trace Evidence as a whole.

Thank you to everyone who participated in the 2021 ASTEE Election!

Election Results:

President Elect

Mike Trimpe 96%

Abstain 3%

Write in 1% Katherine Igowsky
(very funny ☺- Katie)

Secretary

Michelle Drake 98%

Abstain 2%

Director

Dr. Tatiana Trejos 98%

Abstain 2%

Research Committee

One of the roles of the Research Committee is to help pair graduate or undergraduate students interested in conducting research projects with forensic science practitioners. The forensic scientist can guide the student in choosing a project that will be relevant to the field, and provide assistance as needed in the research design, execution, and interpretation of results.

More information about the Research Committee is available on the ASTEE website at <https://www.asteeTrace.org/rcommittee>, and the list of research funding resources has recently been updated.

[AAFS Jan S. Bashinski Criminalities Graduate Thesis Assistance Grant](#)

[The FSF Lucas Grant](#) and [The FSF Acorn Grant](#)

[ASTEE Scholarship and Research Awards](#)

[NIST Funding Opportunities](#)

[NIJ Funding Opportunities](#)

[MAFS Collegiate Student Development Fund](#)

[MAAFS Student Scholarship](#)

[NEAFS Carol De Forest Student Research Grant](#)

[Society for Wildlife Forensic Science: Travel Grant](#)

[Industry–University Cooperative Research Center \(IUCRC\)](#)

If you are interested in assisting a student or a forensic scientist trainee with a research project, know a student who is looking to perform practical research, or have a specific research need you would like fulfilled, please do not hesitate to reach out to asteeresearch@gmail.com.

ASTEE at a Glance – Committee Updates continued...

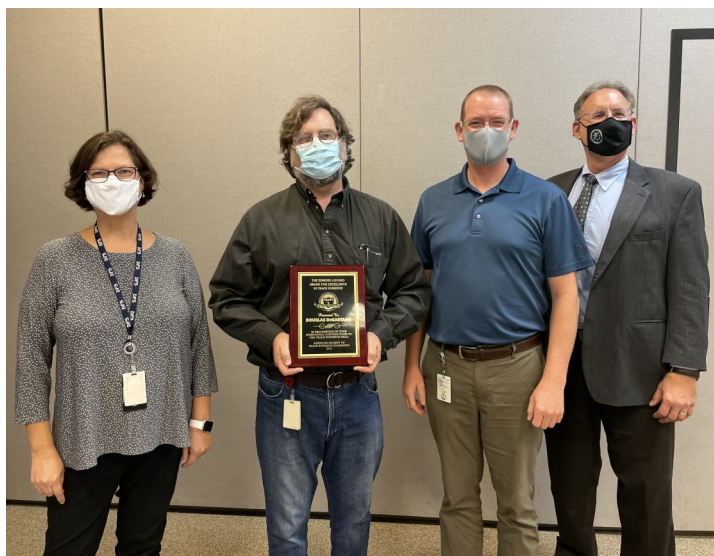
Awards Committee

Congratulations to Douglas DeGaetano, who was awarded the 2021 ASTEE Edmond Locard Award for Excellence in Trace Evidence! Doug is a Principal Forensic Scientist in the Trace Evidence Section at the Virginia Department of Forensic Science in Richmond and was presented with the award in October (see photographs below).

The Student Research Award offers \$250 for undergraduate or graduate students that are performing research specifically in the field of Trace Evidence. Applications are due December 1st.

The ASTEE Scholarship Award of \$500 and a 2 year student membership in ASTEE is presented to a student who has demonstrated academic excellence in the field of Forensic Science, with an emphasis in Trace Evidence. Applications are due February 17th.

More award information and application materials are found at asteetrace.org/awards.



Left Photograph: Doug DeGaetano; Right Top Photograph (left to right): Mary Keehan, Doug DeGaetano, and Chad Schennum (Trace Evidence Forensic Scientists); Right Bottom Photograph (left to right): Agency Director Linda Jackson, Doug DeGaetano, Central Trace Supervisor Joshua Kruger, and Central Lab Director Jeff Ban.

UV-VIS ABSORBANCE

UV-VIS REFLECTANCE

UV-VIS FLUORESCENCE

RAMAN

UV-VIS POLARIZATION

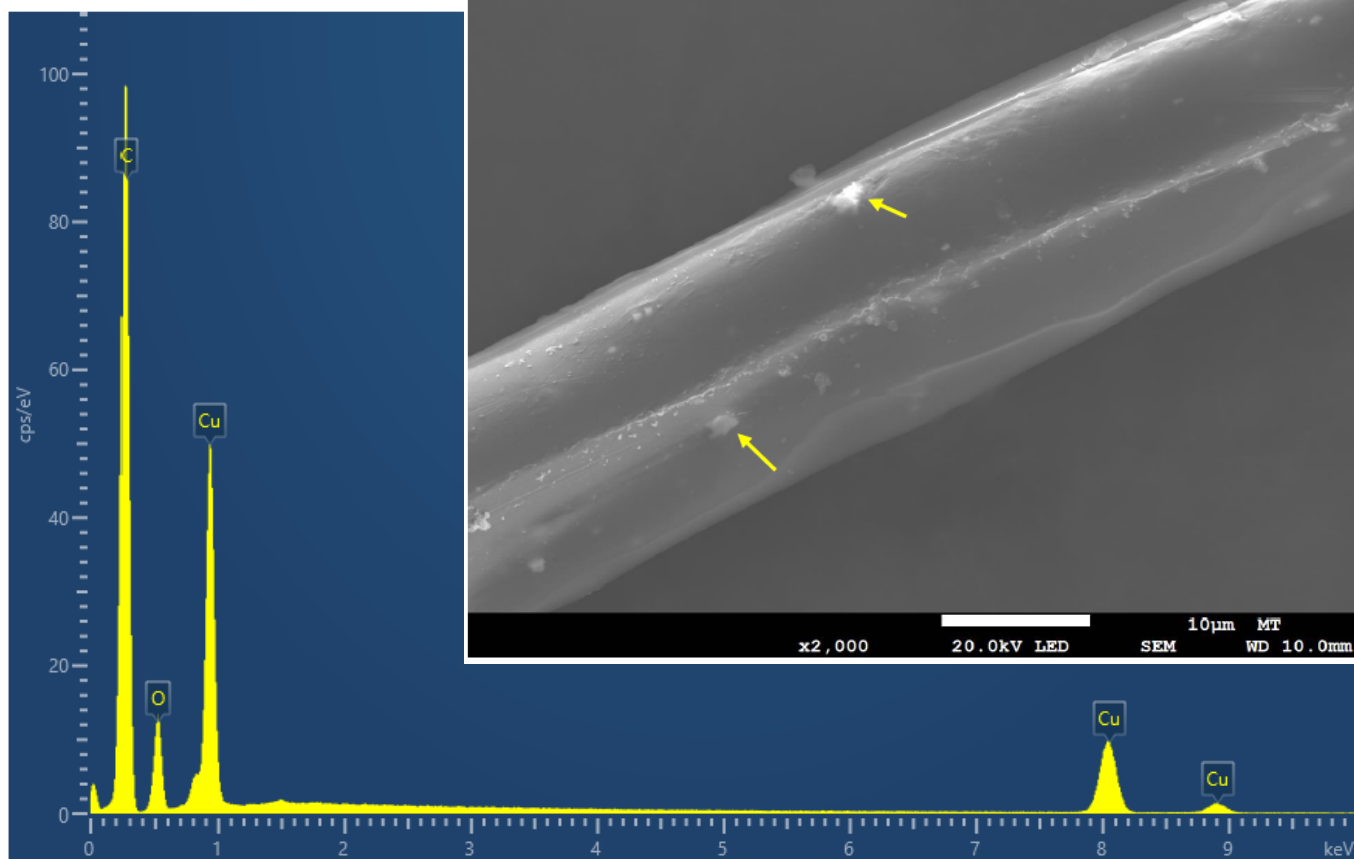
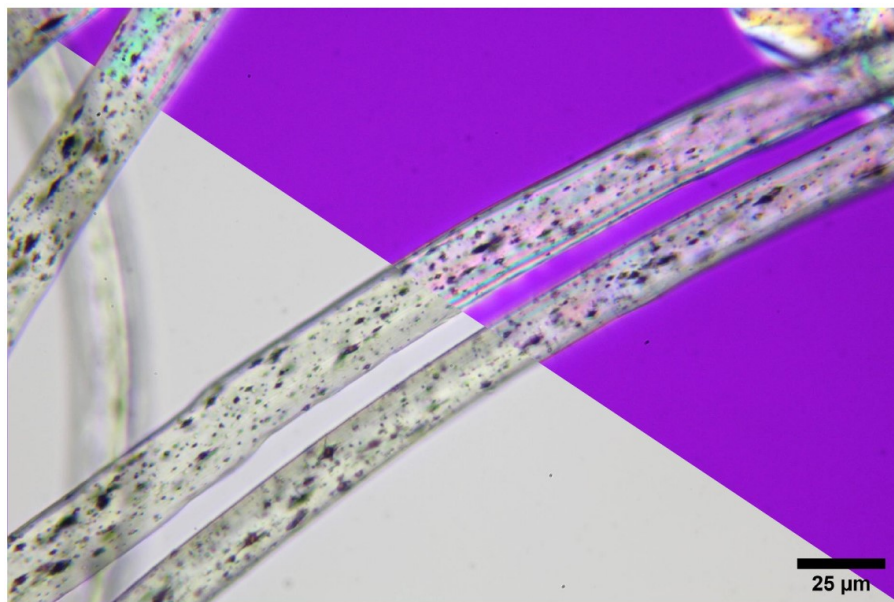
GLASS REFRACTIVE INDEX

WWW.MICROSPECTRA.COM



News You Can Use

Past ASTEE President and current Research Microscopist Kelly Brinsko Beckert recently obtained a sample of a synthetic fiber called “Cupron,” which is PET impregnated with copper particles and touted as being antimicrobial (www.cupron.com). Cupron, Inc. makes products such as face masks, which are currently available for purchase on Amazon. To the right is a PLM image (fibers mounted in xylene, viewed in plane polarized light at lower left and between crossed polars with the Red I compensator inserted at upper right). Below is an SEM image with accompanying EDS spectrum of the copper particles. Happy researching!



Microscopy Courses

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- *Small Particle Identification*
- *Forensic Microscopy*
- *Environmental Analysis*
- *Indoor Air Quality*
- *Crystal Characterization*

Complete course descriptions, course calendar, and secure online registration are available at www.mccroneinstitute.org.



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registrar@mcricri.org

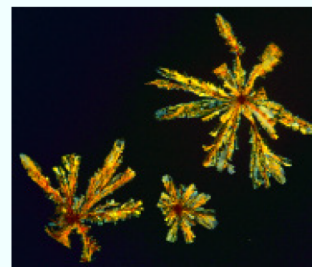
COMING SOON

the
microsc  pe

Volume 68, No. 2

We are pleased to offer the next issue of **The Microscope** journal Vol. 68:2 (2020) as an online edition, which can be viewed on the McCrone Research Institute website, www.mccroneinstitute.org. Featured research articles include:

- The microscopical examination of the roughness of surfaces, by John Russ.
- Brian J. Ford's Critical Focus column on Covid-19 vaccinations.
- Microscopical analyses of asbestos-containing fibrous adhesive, by James Millette, et al.
- New microcrystal tests for illicit drugs, diverted pharmaceuticals, and psychoactive bath salts, by McCrone Research Institute.



For more than 75 years, **The Microscope** has been the foremost journal of microscopy for researchers in a variety of industries, including pharmaceuticals, law enforcement, forensic science, materials analysis, environmental services, academia, conservation, and government labs.

Microscope Publications

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www.mccroneinstitute.org
themicroscope@mcricri.org

ASTEE Word Scramble

What's that pattern in the dirt?!	ISREOPINSM
What's one way you can discern an animal hair from a human hair?	ADULMLE
It feels like this common synthetic fiber is found in everything!	PTORLESYE
What's this polymer? I can use this instrument to help me find out!	IRERFOU FSRATNRMO
Arguably the best forensic discipline.	ACETR
This is so small! What can I use to make it look bigger so I can see it?	ESPOCOCRIM
It has antimony, barium, and lead in it. I know just what this particle is!	HSOUNTG REPMIR EEUIDRS
A commonly found form of me is polyethylene.	LMPOYRE
The roof is on fire! What subdiscipline can tell me if an accelerant was used?!	BITGELNIA IQIDLU EDSRUIE
Don't ever call this item dirt. It's so much more complex!	LSOI
As he says...every contact leaves a trace.	ROADCL
Oh no, I don't have a microscope handy! What else can I use to make this hair appear bigger?	IAIFNGGMYN SALGS
Don't squeeze these too hard or you might damage the evidence.	SEEZRTEW
We dare not use the word "match" in these parts. Instead, some use this word to signify a link between two items	COISANIASOT
Is that a unique feature on that tire tread? No, looks like a common one from the manufacturer.	SLACS SHIAATTCRCEICR
Take those natural fibers away from me, I want my t-shirts made of _____ fibers instead.	YSHTIECTN
How am I supposed to run this thick piece of paint through the FT-IR?!	NTIH LPEE
Someone broke my window. But was it from the inside or outside? This may help me figure it out.	LONIDCOAC FUTRCEAR
Isn't it funny how this phenomenon makes a pencil look bent in water?	RIECTOFAFN



MAAFS 2021 Conference Photographs



May We Introduce You To...

May we introduce you to... Meggan (King) Dempsey

Occupation: Senior research microscopist and instructor at the McCrone Research Institute in Chicago, Illinois.

What Trace Evidence sub-discipline(s) are the focus of your work?

My work focuses mainly on teaching courses in polarized light microscopy, and conducting research that applies to forensic science. Thankfully, the polarized light microscope has a place within many of the trace evidence sub-disciplines, so my goal is to provide a solid foundation that can be applied to the identification of most small particles and fibers. The research that I enjoy being a part of here at the Institute ranges from microcrystal tests for illicit drugs, environmental degradation of fibers, and currently we have a research project underway on the analysis of low explosives.

What is the top activity on your bucket list? Travel! The number one activity on my list is a family trip to Botswana and Tanzania.

What do you like to do in your down time? I love spending time with my family, traveling and I also really enjoy taking ceramics classes. I have been studying ceramics on and off for over 20 years and like both wheel throwing and hand building. My favorite thing that I have made is a (reasonably) anatomically correct human skull, complete with gold teeth and glazed in a day of the dead theme. However, like most other things that I have made over the years, it just ended up sitting in a box on the floor!

Tell us something that would surprise others about you. I actually went to high school and college in the west of Ireland. I know most people just do a semester overseas, but I ended up there for 8 years of school! I had a great high school experience and then as a bonus I ended up meeting my husband in college.



May we introduce you to... Larry Wayne

Occupation: Trace materials investigator (job title: senior scientist)

What Trace Evidence sub-discipline(s) are the focus of your work? GSR, general trace, teaching forensic microscopy

What is your favorite quote? "To get the attention of a large animal, be it an elephant or a bureaucracy, it helps to know what part of it feels pain. Be very sure, though, that you want its full attention." - Kelvin Throop

What do you like to do in your down time? In my down time, I build plastic models. Mostly spaceships and Godzilla.

What is the most interesting place you have been? Most interesting place I've been is behind the scenes at the Field Museum in Chicago. They opened up the back rooms for Member's Day. For a scientist with a love of dinosaurs and ancient Egypt, it was like being a kid in a candy shop.



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GLASS RI
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IMAGE
PROCESSING

LIGHT
POLARISATION

UV-Vis-IR
MICRO-SPECTROSCOPY

ASTEE Word Scramble Answer Key

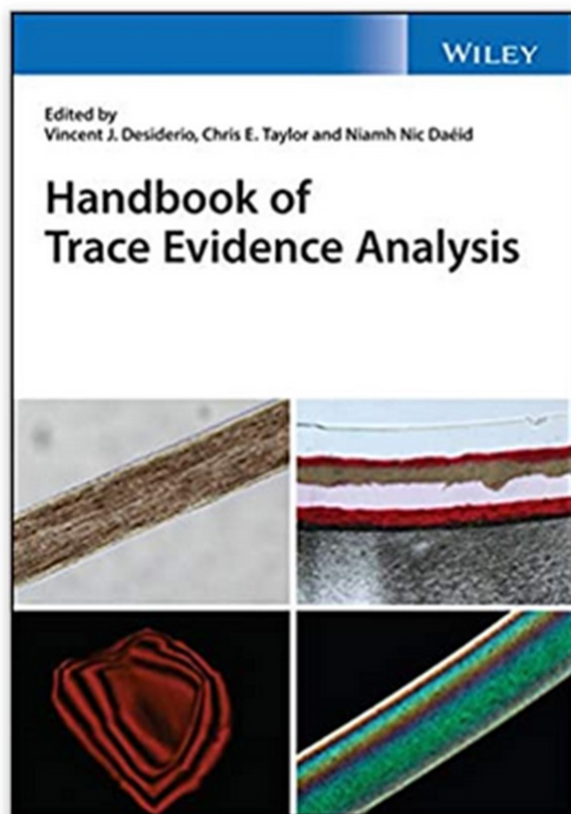
What's that pattern in the dirt?!	ISREOPINSM IMPRESSION
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It feels like this common synthetic fiber is found in everything!	PTORLESYE POLYESTER
What's this polymer? I can use this instrument to help me find out!	IRERFOU FSRATNRMO FOURIER TRANSFORM
Arguably the best forensic discipline.	ACETR TRACE
This is so small! What can I use to make it look bigger so I can see it?	ESPOCOCRIM MICROSCOPE
It has antimony, barium, and lead in it. I know just what this particle is!	HSOUNTG REPMIR EEUIDRS GUNSHOT PRIMER RESIDUE
A commonly found form of me is polyethylene.	LMPOYRE POLYMER
The roof is on fire! What subdiscipline can tell me if an accelerant was used?!	BITGELNIA IQIDLU EDSRUIE IGNITABLE LIQUID RESIDUE
Don't ever call this item dirt. It's so much more complex!	LSOI SOIL
As he says...every contact leaves a trace.	ROADCL LOCARD
Oh no, I don't have a microscope handy! What else can I use to make this hair appear bigger?	IAIFNGGMYN SALGS MAGNIFYING GLASS
Don't squeeze these too hard or you might damage the evidence.	SEEZRTEW TWEEZERS
We dare not use the word "match" in these parts. Instead, some use this word to signify a link between two items	COISANIASOT ASSOCIATION
Is that a unique feature on that tire tread? No, looks like a common one from the manufacturer.	SLACS SHIAATTCRCEICR CLASS CHARACTERISICS
Take those natural fibers away from me, I want my t-shirts made of _____ fibers instead.	YSHTIECTN SYNTHETIC
How am I supposed to run this thick piece of paint through the FT-IR?!	NTIH LPEE THIN PEEL
Someone broke my window. But was it from the inside or outside? This may help me figure it out.	LONIDCOAC FUTRCEAR CONCOIDAL FRACTURE
Isn't it funny how this phenomenon makes a pencil look bent in water?	RIECTOFAFN REFRACTION



ATTENTION ASTEE MEMBERS

There is a new Trace Evidence book, Handbook of Trace Evidence Analysis, that is now being sold. ASTEE's very own past presidents Chris Taylor and Vinny Desiderio are two of the editors.

The book also features chapters by many distinguished ASTEE members and respected Trace Evidence experts.



ISBN-13: 978-1118962114

ISBN-10: 1118962117

Chapter 1: Trace Evidence Recognition, Collection, and Preservation: *Ted Schwartz, Daniel Rothernberg, and *Brandi Clark

Chapter 2: Polarized Light Microscopy for the Trace Evidence Examiner: *Andy Bowen (ASTEE- Past President)

Chapter 3: Paints & Polymers: *Robyn Weimer (ASTEE-Past President); *Diana Wright (ASTEE-Edmond Locard Award for Excellence Recipient) and Tamara Hodgins

Chapter 4: Forensic Hair Microscopy: *Jay Beckert

Chapter 5: Fibers: *Sandy Koch (Current ASTEE President) and Kornelia Nehse

Chapter 6: Interpretation of Glass Evidence: *Tatiana Trejos, James Curran, and Tacha Hicks

Chapter 7: Interpreting Trace Evidence: *Patrick Buzzini and James Curran

* ASTEE Member

Order your copy today!!! More information on this book and ordering information can be found at the following web-

site (please note that other purchase sources are available).

https://www.amazon.com/Handbook-Evidence-Analysis-Vincent-Desiderio/dp/1118962117/ref=sr_1_1?dchild=1&keywords=9781118962114&linkCode=qs&qid=1596198810&s=books&sr=1-1

Some of the royalties of the sale of the book will go to ASTEE- Thank you Chris Taylor!



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