



ANNUAL MEETING

OCTOBER 9-12 • NASHVILLE, TENNESSEE



2022 Annual Meeting Schedule

Sunday, October 9, 2022

	Lunch on Your Own
1245 12:45 p.m.	Meet in Lobby for Tour
1300 – 1700 1:00 p.m. – 5:00 p.m.	Tour of Nashville Well-known for its music and southern charm, Nashville is a city full of beautiful architecture and historical sights. By bus, we will tour the city and see many famous attractions, including the historic downtown, Music Square, Centennial Park, Bicentennial Capitol Mall State Park, American Pickers, and more.
1830 – 2000 6:30 p.m. – 8:00 p.m.	Reception

Monday, October 10, 2022

	Breakfast on your own
0830 – 0900 8:30 a.m. – 9:00 a.m.	Registration
0900 – 0915 9:00 a.m. – 9:15 a.m.	Welcome and Introductions
0915 – 1015 9:15 a.m. – 10:15 a.m.	TBD
1015 – 1030 10:15 a.m. – 10:30 a.m.	Break
1030 – 1115 10:30 a.m. – 11:15 a.m.	Environmental Footprint and Sustainability of Insulating Perlite <i>Dr. Panos M. Angelopoulos, Research, Technical and Marketing Consultant, Perlite Institute</i> <i>Konstantinos Mitsiou, Managing Director, Gulf Perlite LLC</i> In an era of growing concern for the impact that building materials and construction products have on the environment, the choice of which materials to use is increasingly determined by relative performance and sustainability metrics. Among them, the commonly used and representative are embodied energy, embodied carbon, global warming potential, ozone depletion potential, eutrophication and acidification potential. In this presentation, the critical material metrics for environmental performance of expanded perlite are presented and discussed. The analysis is extended to other organic competitive materials like EPS, XPS, polystyrene, and polyurethane, aiming to compare them with perlite and judge them in terms of their sustainability. It is shown that, among all considered insulating materials, perlite presents minimum global warming potential, embodied energy and embodied carbon per volume, as well as minimal environmental footprint. The advantageous position of perlite against other competitive materials in terms of the environmental footprint and sustainability should be used as a strong argument for marketing, now and in the future.

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1115 – 1200 11:15 a.m. – 12:00 p.m.	Brochure Committee Workgroup
1200 – 1300 12:00 p.m. – 1:00 p.m.	Lunch
1300 – 1345 1:00 p.m. – 1:45 p.m.	Progress on Ecolotree Research <i>Dr. Louis Licht, Ecolotree</i>
	<p>In April of 2018, the Perlite Institute Board of Directors approved a \$10,000 grant for a research project entitled “Ecolotree”. The purpose of the research was to understand the impact of various process parameters (Ammonia and COD reduction) on perlite based phyto-reactors, and to evaluate the field performance of a perlite based phyto-reactor cell as a component of multimodal algal bioreactor for treatment of domestic wastewater. This presentation will provide the results of that research and update the progress being made.</p>
1345 – 1430 1:45 p.m. – 2:30 p.m.	Construction Committee Workgroup
1430 – 1500 2:30 p.m. – 3:00 p.m.	FIBC & Applications in Minerals <i>Lily Ye, Director of Sales and Marketing, Anthente International</i>
1800 – 1930 6:00 p.m. – 7:30 p.m.	Reception

Tuesday, October 11, 2022

	Breakfast on your own
0900 – 0915 9:00 a.m. – 9:15 a.m.	Welcome and Introductions
0915 – 1000 9:15 a.m. – 10:00 a.m.	Carbon Footprint: Why, Reporting & Marketing <i>Chuck Vogelsang, Technical Spokesperson, Perlite Institute</i>
	<p>Why has the carbon footprint become such an important topic for our industry recently? Join us to learn why and further discuss the carbon footprint over the entire life cycle of perlite – from mining to disposal and how that relates to other competitive materials. In addition to projecting the expected significant upcoming costs, we will also review what types of information will likely be required from one’s local authorities for both ore and expander standpoints. This session will also discuss the importance of the perlite industry keeping their focus on its volume – the way it is consumed – and not on weight.</p>
1000 – 1015 10:00 a.m. – 10:15 a.m.	An Overview of Perlite Filter Aid <i>Zack Galberd, Southeast Regional Sales Manager, Dicalite Management Group, Inc.</i>
	<p>Dicalite is known for its use of perlite as a filter aid. This presentation will provide an overview of how Dicalite uses perlite in its filter aid processes.</p>
1015 – 1100 10:15 a.m. – 11:00 a.m.	Break

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1100 – 1145 11:00 a.m. – 11:45 a.m.	Filtration Committee Workgroup
1145 – 1230 11:45 a.m. – 12:30 p.m.	Lunch
1300 1:00 p.m.	Meet in lobby to depart for tour
1330 – 1630 1:30 p.m. – 4:30 p.m.	Tour of Dicaperyl This year our group has the opportunity to tour Dicalite Management Group's Nashville facility, which produces Dicaperyl expanded perlite products for a variety of industries and uses, including: <ul style="list-style-type: none">• HP 2000 for the drywall industry• Blockfil for cement block insulation• Chem-sil for light or small construction jobs• Aerosoil Horticultural for growing and horticulture applications
1700 5:00 p.m.	Arrive at hotel
1800 – 1930 6:00 p.m. – 7:30 p.m.	Reception

Wednesday, October 12, 2022

	Breakfast on your own
0900 – 0915 9:00 a.m. – 9:15 a.m.	Welcome and Introductions
0915 – 1000 9:15 a.m. – 10:00 a.m.	Incorporation of Perlite in Sandy Soil as a Measure to Reduce Irrigation Water Needs of Turf Grass and Bougainville <i>Dr. Panos M. Angelopoulos, Perlite Institute Technical and Marketing Consultant</i> <i>Dr. Ioannis Zafeiriou, Postdoctoral Researcher, Agricultural University of Athens</i> <i>Reema Bolokbaeva, Director of Horticulture Committee, Gulf Perlite LLC</i> In the framework of the collaboration between the Agricultural University of Athens and the Perlite Institute, a field experiment and laboratory analyses were carried out in order to determine the full physico-chemical properties of fine perlite by laboratory analysis and to investigate whether the application of fine perlite in layers in the soil environment of the rhizosphere helps in water assimilation. This session gives an overview of the study and the data derived from the research project. In general, the experimental procedure was carried out without any obstacles or failures and the data obtained was reasonable and expected according to the literature. It is shown experimentally that the use of perlite allows 50% reduction of the irrigation water enabling efficient use of the natural resources.
1000 – 1045 10:00 a.m. – 10:45 a.m.	Horticulture Committee Workgroup
1045 – 1100 10:45 a.m. – 11:00 a.m.	Break

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1100 – 1145 | 11:00 a.m. – 11:45 a.m.

Product Specifications and Requirements for Perlite

David Yarbrough, R&D Services, Inc., Emeritus Professor of Chemical Engineering, Tennessee Tech

This session will focus on international standards (i.e. ASTM and EN) that address perlite. Is your company in the know? How can you get involved in these organizations? Why is it important to keep current with standards that impact your product? David has served as a consultant for the Perlite Institute for many years and is knowledgeable about the standards that impact members. Come ready with your questions about standard-setting organizations!

1145 – 1230 | 11:45 a.m. – 12:30 p.m.

Membership Committee Workgroup

1230 – 1345 | 12:30 p.m. – 1:45 p.m.

Lunch and Annual Business Meeting

1345 – 1430 | 1:45 p.m. – 2:30 p.m.

LiComPerl and 3D Mine Mapping Artificial Intelligence

*Dr. Antonia Ekonomakou, Managing Director, in.mat-lab
Achilleas Amanatidis, Principal Consultant, in.mat-lab*

LiComPerl - Development of lightweight composites based on expanded perlite for construction & environmental applications.

This presentation concerns the most updated R&D results of the LiComPerl project on the development of perlite composites with: paraffins (phase-change-materials) for construction applications, and chitosan for environmental applications (heavy metal retention).

3DMaint - 3D Mine Mapping Artificial Intelligence: from pit-to-market decision support instrument – Perlite Case

This presentation concerns an innovative software that will provide a 3D interactive imaging for smart exploration and exploitation of a perlite deposit according to its final uses (e.g. insulation, construction, agriculture, filtration etc.). This innovation will allow users to define their own scenarios regarding final applications for the deposit and retrieve a 3D bloc model of the corresponding market value. The solution will advocate a better use of mineral resources as it democratizes best practices. It will be a powerful leverage in raising awareness regarding resource optimization. This solution also incites small scale mining and end-use monitored excavations in a global economic context.

1430 – 1515 | 2:30 p.m. – 3:15 p.m.

Process Monitoring, Data Presentation & Automation

Chuck Vogelsang, Technical Spokesperson, Perlite Institute

Through examples of useful and useless approaches, this session will focus on process monitoring, process control and automation, including what typical measurements could be of value in the expansion process. We will discuss the need for the measurements to be reproducible and representative of the population of the run, as well as how to present the operational data so that it is easily understood and can be used to control the process.

1800 – 2200 | 6:00 p.m. – 10:00 p.m.

Annual Dinner

Speakers

Achilleas Amanatidis



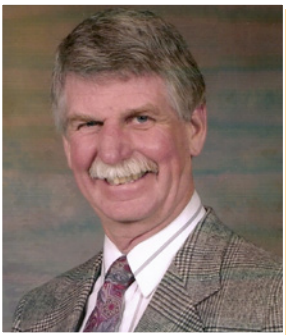
Achilleas received his MSc in Mining & Metallurgy Engineering in 1992. After working eight years as a senior researcher in the NTUA/Lab of Metallurgy, he continued his professional career as Head of Refractories production at Mathios Refractories S.A. organizing and synchronizing operations of two plants and targeting the decrement of operational costs. In 2002, Achilleas entered the world of perlite as Technical Support Engineer for S&B Industrial Minerals S.A., responsible for international customers' technical support, participating in various internal, B2B and EU funded R&D projects based on industrial minerals. He was also responsible for the knowledge database of a very wide range of perlite qualities from all around the world through lab and industrial tests and analyses. In 2010 and for the next six years, Achilleas took the position of Expanded Perlite Operations Manager with responsibilities over a multi-functional plant with everyday production, serving a range of perlite products covering construction, agriculture, hydroponics, filter aids, cryogenic insulation, fillers for paints and plastics. After S&B's acquisition by Imerys, he joined Dr. Antonia Ekonomakou, in.mat-Lab's founder, as Principal Consultant, bringing experience and a proven track record of success in the field of perlite, meeting the company's goals and objectives for a professional consultancy to mining companies, perlite expansion plants and final producers.

Dr. Antonia Ekonomakou



Antonia received her MSc in Mining & Metallurgy Engineering in 1991. She joined MIRTEC S.A. (ex-CERECO) initially as a PhD candidate, where she has been involved in numerous national EU funded research projects. In 1997, Antonia continued working in MIRTEC as a scientist and QC, responsible for the Cement & Concrete Lab. For 10 years, she was involved in providing services to the ceramic industry, especially SMEs, regarding quality control as well as solutions for the usage and/or recycling of their raw materials and byproducts. In the year 2002, Antonia continued her professional career as Head of the Central R&D labs at S&B Industrial Minerals S.A., involved in the management of quality control as well as the development of new products dealing with issues concerning the compliance of the Central Labs to the Group policies. She handled Greek as well as international regulations, harmonization of lab procedures among the different labs and supported the various production sites on various quality issues. In 2011 and until 2014, Antonia accepted the position of Material Scientist and ran feasibility studies (technical and market oriented) regarding new ideas as well as potential applications/markets and products via intensive customer contacts for detecting new business opportunities and development of suitable products and new product developments. In 2016, Antonia founded in.mat-Lab, setting the company's goals and objectives for a professional consultancy to mining companies, perlite expansion plants, and final producers.

Chuck Vogelsang



Chuck Vogelsang has over 40 years of operational and technical background working with a variety of plants throughout the world to make improvements—both process as well as cost related. From a perlite industry standpoint, he has been in more than 100 perlite expansion plants and 10 ore mills and mines. He has been extensively involved with systems that make horticulture, construction, insulation, filteraid and filler type expanded grades.

He has been involved with many products that were devoted to the needs of the customers and how to change or make a product for a specific application. He believes that the ultimate judge is the customer who votes on the acceptability and value of material with their money.

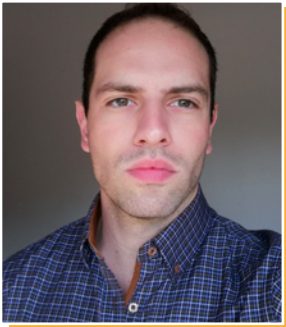
Speakers

David Yarbrough



Dave Yarbrough is V.P. of R&D Services, Inc., a testing and consulting organization located in Watertown, Tennessee. He is an Emeritus Professor of Chemical Engineering (Tennessee Technological University) and a retired research staff member of the Oak Ridge National Laboratory. As an active member of ASTM Committee C16 (Thermal Insulation) and an ASTM Fellow, Dave chairs task groups of interest to Perlite Institute members. Dave is also a voting member of the ISO Technical Assistance group (TAG) for ISO/TG 163.

Ioannis Zafeiriou



Ioannis Zafeiriou is an agronomist with a Master's degree in sustainable agriculture and business and a PhD in environmental soil science. He specializes in the dynamic of nutrients in soil environments and the mechanisms that control their uptake by plants. His research is mainly focused on soil amendments such as zeolites, perlite, biochar, etc. that can be used to protect soil health and environmental quality. Since 2018, when he graduated from the Agricultural University of Athens, he has been working as a research associate in multiple research projects on behalf of the university.

Konstantin Mitsiou



Konstantin Mitsiou is Founding Partner and Managing Director at Gulf Perlite LLC, Dubai, UAE. Gulf Perlite focuses on promoting sustainable perlite-based landscaping, horticultural, building and industrial applications, and delivers supply & apply solutions to a wide range of landscaping, construction, oil & gas and industrial clients, as well as high-profile projects across the Arabian Gulf Region. Konstantin has studied Economics at Oxford and Harvard and holds an MBA from IMD. He has previously worked with McKinsey Consulting and the OECD.

Lily Ye



Lily Ye has been with Anthente since 2006. She spearheaded the establishment of the North American office in Atlanta, Georgia, revamped the manufacturing process to meet the North American food/pharm standards, created specialty products that are now in more than 500 retail stores across U.S./Canada, partnered with U.S. domestic manufacturing to provide modification and JIT services, and opened a new manufacturing facility in Bangladesh to increase production capacity. She is instrumental in leading Anthente to move away from private labeling and create its own brand with direct end-users in North America, South America, and Europe. Lily has over 15 years of unique experience working with mining products such as perlite, kaolin, calcium carbonates and other minerals.

Speakers

Louis Licht



Louis Licht is founder and president of Ecolotree®, Inc. He has synthesized past work and academic experience into a new field of environmental cleanup called phytoremediation or phyto. Beginning in 1981, he has focused his intellectual and business effort on the practical application of root zones to grow a crop while managing water and regulated pollutants. Having grown up on a family farm in Lowden, Iowa, he now manages corn and soybean fields to reduce sediment and nitrate draining to streams. Since 1990, Ecolotree® has installed phytoremediation systems at over 130 sites in 37 states growing trees to displace conventionally engineered abiotic cleanup designs.

Dr. Licht serves as an adjunct Associate Professor at The University of Iowa, Department of Civil and Environmental Engineering. He has served as lecturer and instructor for senior design projects at Oregon State University and The University of Iowa.

Dr. Licht owns and manages Ecolofarm® farm. Operations include: two licensed nurseries in Lowden Iowa and Coupeville Washington, 90 acres growing commercial corn and soybeans in cooperation with a local farmer, and 270 acres mature flood plain hardwood forest and Emergency Wetlands Reserve.

Panos Angelopoulos



Panagiotis Angelopoulos holds a diploma in Mining and Metallurgical Engineering and a PhD in “Production of Expanded Perlite Microspheres: Process Development and Mathematical Modeling” from National Technical University of Athens under fellowship of the National Scholarships Foundation (2013). In 2015, he was awarded the Academy of Athens Research Publication Excellence Prize, in recognition of his paper entitled “Model-Based Sensitivity Analysis and Experimental Investigation of Perlite Grain Expansion in a Vertical Electric Furnace.” In 2016, he was a postdoctoral fellow of IKY-SIEMENS fellowship program for the investigation of “The use of low-grade volcanic glass as raw material in the production of lightweight microspheres.”

He is author of 17 research papers dealing with: evolution of thermophysical phenomena during perlite expansion, the Vertical Electric Furnace concept and the preparation of expanded perlite microspheres, expansion process modelling and simulation, and development of new uses and products from perlite. He is co-inventor of a European patent entitled “Expanded and expandable granular materials.”

Currently, he holds a position as Senior Researcher in Laboratory of Metallurgy of the NTUA (Greece). During the last few years, he has been involved in the preparation of research proposals and managing of EU research projects, all of which involve the development of new uses for conventional perlite and the development of new perlitic products tailored for use in constructions, plastics and fillers, environmental rehabilitation and wastes depollution. Furthermore, he is dealing with ores’ evaluation, Transfer-of-Technology (ToT) and product development projects.

Reema Bolokbaeva

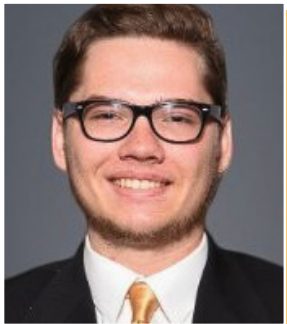


Reema Bolokbaeva (BA,MA) is originally from Kyrgyzstan and has been living in Dubai, UAE, for the past 20 years. Reema has been part of the core team which set up Gulf Perlite LLC ten years back and currently heads GP’s horticultural department.

A strong believer in perlite, Reema has been working with numerous international consultants and contractors to deliver perlite-based soil amendment solutions for landscaping at prestigious major development projects in Dubai and Abu Dhabi.

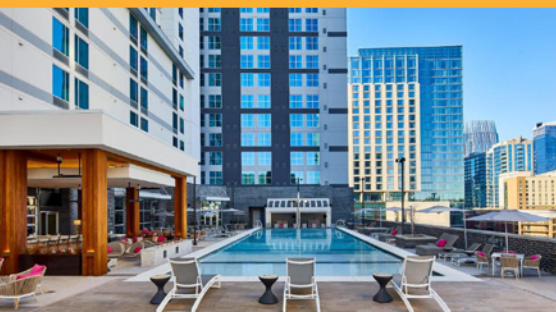
Speakers

Zack Galberd



Zack Galberd is a technical filtration expert at Dicalite Management Group with a background in physics and engineering, and a family history working in the filtration industry. He trained for a year and a half as an intern studying filtration under some of the industry experts. He has spent the last year and a half in a technical sales position and filtration specialist at Dicalite. He has helped many customers with the efficiency and improvement of their filtration systems.

Hotel & Travel Information



Hotel

AC Hotel Nashville Downtown

410 Rep. John Lewis Way South
Nashville, Tennessee 37203

Hotel Parking

Valet: \$48 daily

Airport

Nashville International Airport (BNA)

One Terminal Drive
Nashville, TN 37214
(615) 275-1675

Airport Transportation

Ride App Directions

Ride App vehicles (Uber/Lyft) pick up at the Ground Transportation Center, Level 1 of Terminal Garage 2.

[Click here for a diagram showing pick-up locations.](#)

- Lyft Picks up in Ride App Zone A
- Uber Picks up in Ride App Zones B & C

Directions to the Ground Transportation Center:

- Exit the Main Terminal on Level 1 and turn right.
- Follow the sidewalk and pedestrian canopy to Terminal Garage 2. Overhead signs will direct you.
- The Ground Transportation Center is on Level 1.

[Click here](#) for information on ride app, rental car, taxi services and other transportation options from Nashville International Airport.



Perlite Institute Annual Meeting

October 9 - 12, 2022 • Nashville, Tennessee

Registration Form - Registration and Cancellation Deadline is September 28

Cancellations must be received in writing on or before the cancellation deadline to receive a full refund less a \$25 service fee plus any processing fees.

Please complete one form per attendee (duplicate as needed).

Attendee Information

Attendee Name (as it should appear on badge): _____

Business Name: _____

Business Address: _____

City: _____ State: _____ Zip: _____ Country: _____

Phone: _____ Cell: _____

Email: _____

Registration Rate:

Member: \$1500 Non-Member: \$1500 plus dues* Companion: \$750 (includes all meals, receptions and tours)

**Dues must be remitted only for the first registrant from a company and are based on your category of membership. Please contact the Perlite Institute to obtain a membership application or visit perlite.org.*

Meal Preference: Standard Vegetarian Gluten-free

Please check the events you plan to attend:

Sunday, October 9 – Tour of Nashville

Sunday, October 9 – Reception

Monday, October 10 – Lunch

Monday, October 10 – Reception

Tuesday, October 11 – Lunch and Industry Tour

Tuesday, October 11 – Reception

Wednesday, October 12 – Lunch and Business Meeting

Wednesday, October 12 – Annual Dinner

Emergency Contact and Special Needs

Name of non-attending contact: _____

Phone: _____ Cell: _____

Please indicate if you have any special dietary needs or require special accommodations to fully participate:

PAYMENT INFORMATION

AMOUNT DUE: US\$ _____

Check (made payable to "The Perlite Institute" in USD) Visa MasterCard Discover Wire Transfer

**Please contact finance@perlite.org for wire transfer details.*

Card Number: _____ Exp. Date: _____ 3-Digit Security Code: _____

Cardholder Name (please print): _____

Cardholder Signature: _____

Billing Address (if different from above): _____

City: _____ State: _____ Zip: _____ Country: _____