

EDITOR'S NOTE:

The following is an abridged version of an article written by Bill Lieberum, consumer advocate. The complete article, *Calling on the World for Immediate Action*, appears at www.accurateappraisal.com. Check it out. We have edited for length.

Only Skin Deep

by Bill Lieberum

Introductory Information

Treatment of Gemstones

For many years gems have been treated to make them look better or more appealing than how Mother Nature created them. Using the word treatment lightly, the first and most obvious treatment is polishing the stones. Changing a gem from its natural rock or crystal-like appearance to that of a cabochon, carved or faceted stone based on attractiveness is a treatment so obvious that it doesn't need disclosure. The benefit of the appearance to the stone is obvious to everyone and the radical appearance of a cut gemstone obviates any special notice that the treatment was conducted.

However, the manner in which the treatment is conducted is the subject of several portions of the Federal Trade Commission's (FTC) Guidelines in the U.S.; i.e. how many facets are polished on a diamond, etc.

The next level of treatments are those that are not obvious to the consumer's eye. These treatments include dyeing, laser drilling, laser color enhancements, fracture filling, heating, oiling and bleaching. By law, these treatments must be disclosed. Unfortunately, our industry is confused a little by the FTC Guidelines. Most industry members think that they are only required to disclose some treatments. For example:

the industry has been hard-pressed regarding whether or not to disclose laser drilling in diamonds. It appears now that a major part of the industry has convinced the FTC to add laser drilling to the list of required disclosures.

To a degree, this is all in vain. Under the law in the Uniform Commercial Code (UCC), there is a requirement not to deceive or mislead a purchaser. In the UCC, the requirements are laid-out as warranties, expressed and implied. Intentionally covering up a fact which would affect the consumer's decision to purchase or that would tear apart the right to a consumer's benefit of the bargain makes the disclosure of laser drilling law already.

It is interesting to watch our industry ignore this. The FTC Guidelines don't really say much about the punishment when someone ignores this; it just says it is an "unfair trade practice."

But then, the FTC Guidelines have only nominal effects unless a case is tried in Federal Court, or a judge in a lower court "admits in" the FTC Guides as law in his/her court.



The GE/POL/Lazare Kaplan Differences

In the article published by Martin Rapaport, GE's new process, Mr. Rapaport points out the following:

Continued on page 3 —

In March 1999, Rapaport Diamond's Website posted a trade alert stating that the General Electric Company and Pegasus Overseas Unlimited (POL)/Lazare Kaplan have entered into a ten-year sales agreement to distribute GE-enhanced diamonds. According to the alert, the process, developed by GE, "can significantly enhance the color and brilliance of select types of rough and polished diamonds" and processed stones "will remain undetectable."

The Rapaport alert parallels a company release by POL, dated March 1, 1999, that states, "The process is designed to improve the color, brilliance and brightness of qualifying diamonds without reducing their all natural content" and that "After undergoing the process, each diamond is identical to other naturally produced diamonds."

However, GE has not disclosed any information regarding the process. In a March 23, 1999 release from the GIA, President William E. Boyadjian is quoted as saying, "It is usual for GIA to be consulted well in advance by firms involved in gemstone treatments, and I see this situation as no exception."

Later, in the same release, he adds, "If diamonds are treated in any way, then the trade has a right to know — and ultimately so does the consumer. The integrity of our industry is at stake."

A second company, Schaumburg of Illinois, has announced that they also have a process. At the time of this writing, the treatment is still reported as undisclosed.

AGA is a nonprofit research, education and ethics organization benefiting professional and avocation gemologists as well as consumer interest. Membership programs include advanced gemological education seminars, workshops, and the AGA Certified Gemological Laboratory Program.

CORNERSTONE is a publication of the Accredited Gemologists Association. Paid for through membership dues, this publication may not be purchased commercially. The opinions expressed within are those of the individual authors. AGA can assume no liability for these statements, which are offered entirely for the purposes of informed professional discourse and education.

Copyright ©1999, Accredited Gemologists Association • All rights reserved

Editor: Douglas Kearney
San Diego, CA

For information regarding
Cornerstone Contact:
International Headquarters
3309 Juanita Street,
San Diego, CA 92105
<http://aga.polygon.net>

BOARD OF DIRECTORS:

PRESIDENT

Thom Underwood, GG, ASA,
ISA, AGA, NAJA
Master Gemologist Appraiser

VICE PRESIDENT

Joseph DuMouchelle, GG
Joseph DuMouchelle Fine and
Estate Jewellers
Plymouth, MI

SECRETARY

Melinda H. Adducci, GG, NGJA
Joseph DuMouchelle Fine and
Estate Jewellers
Plymouth, MI

TREASURER

David L. Harris, CEA, GG, NGJA
Consumer Gemological Laboratory
San Francisco, CA

BOARD OF GOVERNORS:

Richard C. Huntington, ASA, CGA, GG
Huntington Jewelers
Las Vegas, NV

Lorraine Lopez, ASA, FGA, GG
Master Gemologist Appraiser
Long Valley, NJ

Craig A. Lynch, GG
Quellette & Lynch Appraising &
Liquidation Consulting
Glendale, AZ

James Naughter, GG, NAJA
A & A Gemological Laboratory
Albany, NY

Dana Lynn Richardson, ASA, GG
Master Gemologist Appraiser
Spectrum Gems
Salt Lake City, UT

Christine York, ASA, GG
Master Gemologist Appraiser
Bellaire, TX

PRESIDENT'S NOTE

by Thom Underwood

THE HOLY GRAIL HAS BEEN UNEARTHED BY TECHNOLOGY

The last bastion of a natural characteristic in diamond has fallen subject to treatment. Color.

Color is the characteristic that had defied diamond treatment and symbolized stability (at least from alteration) for those who grade diamonds. However, color is safe no longer. GE and Lazar Kaplan have informed us that they can enhance the color and brilliance of some diamonds and in fact have been doing it for some time.

While only a small percentage of diamonds can be treated, GE and Lazare Kaplan have also informed us that the treatment can't be detected nor will they assist the gemological community in discovering more about the

treatment. How will this affect the public's confidence in diamonds, the diamond marketplace and our ability to evaluate and ultimately value diamonds?

In the previous *Cornerstone* we concluded an article on topaz surface diffusion with a comment on gemstone enhancements suggesting that we should expect to see more treatments in the future. Even we did not expect so soon to see a treatment that strikes so profoundly at the very core of the gem business.

This issue of the *Cornerstone* explores the GE/LK press release with a commentary by Bill Lieberum as well as touching once again on the moissanite tester issue. Enjoy.

★ ★ *A Dazzling Exhibition* ★

Outside the San Diego Natural History Museum, a list of regulations reads like the book of Leviticus. *No cameras. No bags. No touching.* Juxtapose this with the genuinely cheery docents who check backpacks and oversized handbags at the foot of the museum steps and you have the beginnings of an analogy (austerity meets dazzle, pragmatism meets fancy) that can easily be applied to the subject of all the fuss.

"The Nature of Diamonds" exhibition at the museum is billed in a special promotional edition of *San Diego Magazine* as "the most comprehensive exhibition ever mounted on the subject of diamonds." With the GIA as co-host, it has the muscle to live up to the claim. The exhibition (developed by The American Museum of Natural History, New York and featured in *San Diego* from March 27-September 7, 1999) "examines the many facets of diamonds" — from its physical structure to its legendary metaphysical powers; its use in industry to its use in jewelry; facts to folklore; pragmatism to fancy. Among the wide variety of exhibits — a simulated mine tunnel; an automated display that demonstrates

fluorescence and irradiation; an interactive grip device that shows how much pressure it takes to make diamond; a multilinguistic study of the etymology of "diamond"; a video of Marilyn Monroe performing *Diamonds are a Girl's Best Friend*; and the 407.8 carat "Incomparable" diamond — "The Nature of Diamonds" is sure to engage everyone from the microscope-peering gemologist to the most wide-eyed lover of shiny rocks.

If you're coming to the International Gemological Symposium this June, make sure you stop by The San Diego Natural History Museum in Balboa Park, (619) 232-3821 ext. 210 for tickets or visit their website at www.sdnhm.org for additional information. Just don't bring any oversized handbags.

And while on the subject of the Symposium, the AGA will sponsor a booth featuring an examination of treated topaz — a follow-up to our special series in Tucson. The Symposium will be held June 21-24, 1999. For information, call (800) 421-7250 ext. 4406 or check out the website at www.gia.edu. ■ ★

— Continued from page 1

- only 1% of the diamond market will be affected
- the stones that POL is going to market will be sold only in Antwerp
- these stones are not going to be cut in the typical ideal cut of Lazare Kaplan stones
- only certain types of stones can be processed

and infers that:

- GE can make light brown stones as high as "E" color
- the GE process can improve the brilliance of an otherwise less brilliant diamond
- GIA may have to recall diamonds it graded previously to add a disclosure statement

But there arises another question...

Do We Really Have to Tell it All?

New technology is good, and those who spend the time and money in research and development certainly deserve a reasonable reward for their efforts. There is nothing wrong with the process itself; the problem is that they have not supplied the rest of the industry with a way to tell when the process has been done.

Let's look at Ramaura Co./Judith Osmer and Virginia Carter for a moment. Their company, J.O. Crystal, invented a process by which they can manufacture undetectable synthetic rubies. But rather than be unethical, Osmer and her partner Carter "mark" the stones; thus, their process doesn't upset the natural stone market. They have been forthright in making detection of their product easy for the trade. They also have been honest in not selling stones that don't have the dopant added, despite the number of requests to do so. Osmer and Carter have demonstrated a rare leadership quality where principal means more than the pot of green at the end of the rainbow.

However, it is another story with GE and its diamond partner. Instead of providing a method of detection, and a way to separate these goods from the others, sharing the financial benefit as a result; they chose to be secretive and destructive to the entire industry, not to mention the outreaching effect into other industries, too.



The Unfair Advantage

Let's talk about just how this REALLY may affect worldwide diamond trading and other interests.

The "Benefits" to Consumers

Personally, I can't see how consumers will benefit from this scenario at all. In fact, this is a blatant act designed to enrich unjustly, giving everyone in the sales chain less value than they should receive.

If consumers are really buying an H transformed to an E, there should be an advantage to doing that, but in this scenario there isn't. GE/POL/Lazare Kaplan intends to offer no reduction in price for the processed diamonds, and will deceptively sell them at the regular prices.

People want to know that they are getting value for their hard-earned dollars. This is why more and more people are insisting on GIA reports. For years, the industry has attempted to get consumers to understand treatment disclosure. Now, as an industry, we have to say: "We have a process that we can't detect. So, if you happen to get one of these processed diamonds, well we're gonna charge you the same price — but later on when we can detect the processed stones, and you find out that a diamond you bought was altered by this process — well, tough luck buddy!" This is the position that the present scenario will force every honest jeweler and seller into.

Not to be an alarmist, but I can't conceive of how this sort of disclaimer isn't going to injure the smiling face of the jeweler with anything less than a big, black eye.

The Effect

The actions of GE/POL/Lazare Kaplan open huge liabilities for sellers of these diamonds in the U.S. In the U.S., under the UCC:

A misrepresentation is fraudulent if the maker: (a) knows or believes that the matter is not as he represents it to be. (b) does not have the confidence in the accuracy of his representation that he states or implies or (c) knows that he does not have the basis for his representation that he states or implies" (from Section 526).

Section 531 General Rule:

One who makes a fraudulent misrepresentation is subject to liability to the persons or class of persons whom he intends or has reason to expect to act or to refrain from action in reliance upon the misrepresentation, for pecuniary loss suffered by them through their justifiable reliance in the type of transaction in which he intends or has reason to expect their conduct to be influenced.

Continued on page 4 —



Larry Azose
Bellevue, Washington

Lisa N. Perino
Gotha, Florida

Corey Shaughnessy
Austin, Texas

Craig Husar
Brookfield, Wisconsin

Todd Gimble
St. Paul, Minnesota

Skin Deep

Continued from page 3 —

It isn't a secret that these actions certainly establish far-reaching questions as to the validity of buying natural color diamonds.

The UCC certainly makes a resounding "thump" requiring the disclosure of any condition, characteristic or effect, regardless of what it is, should it conceal or confuse, deceive or mislead the purchaser in arriving at his purchasing decision (this is also a part of the 23.1 section of the FTC).

Now that we have all been put on notice that as of May 1, 1999, the diamonds we buy may have been processed in some way, how can we in good faith do business with anyone? We know the diamonds are going to be out there for sale. We all must consider the overwhelming possibility that sooner or later, diamonds processed under this method are going to be sold without the disclosure of the process, since it is undetectable.

PROCESS OR TREATMENT

There are opposing opinions on just how GE accomplishes its diamond improvements. Some say GE uses heat and pressure; thus, it is a treatment. On the other hand, Martin Haske, based on a patent he found registered to Kurt Nassau, says it's more like cleansing or washing; thus, a process. An additional theory suggests that the GE process has a way of moving the contaminants to the edge of the stone, concentrating the color which has spread through the "layering" of growth. Once the color is "pushed" to the edge, it is cut off, leaving the stone far whiter. However, the argument of "process" versus "treatment" is ultimately a mere question of semantics when it comes to treating

Recently, I met with a consumer who unwittingly purchased a laser-drilled diamond. Even though the "rules" of the FTC protected the seller (who didn't have to disclose the drilling), the consumer was outraged. She has spent a year talking different

trade groups about her experience and how "distastefully" the industry and the FTC have handled this issue.

The actions of our industry with regard to laser drilling have been far less than "above board." The aforementioned consumer reported to me that while in meetings with many major industry groups, these groups acted in bad faith, telling her not to go public with her story. She alleges that she was told "Jewelers will be put out of business and won't be able to put food on the table! You have to keep this quiet, we will in turn work with the FTC to get the Guidelines changed." Well, it has been almost a year and while there are still rumblings about it, the Guidelines have not been amended.

This consumer and I met for more than five hours, going over the tremendous volume of research she did. Through the Freedom of Information Act she got a copy of all of the Responses to the FTC in 1992, one of which was written by a "task force committee" which I chaired for both ISA and AGS at the time. She reported to me that she was told by the FTC that the only trade opinion they considered in their decision to

omit disclosure of diamond laser drilling was based on a letter from the DMIA, even though almost every other industry group supported consumer disclosure.

In the DMIA letter, there were grossly untrue statements: such as (1) laser drilling improves the clarity grading of a diamond (2) that evidence of laser drilling is conspicuous with a 10X loupe (3) that laser drilling diamonds increases their value (4) that laser drilling is a process not a treatment.

If this is the format for "policing ourselves" as our industry has consistently told everyone, then our major trade groups need a harsh flogging. The simple truth of the matter is that certain interests don't want to be required to tell the truth to consumers. This is a disgraceful and unethical practice, yet consumers are expected to accept it.

I find it quite amazing that much of the industry is up in arms over what is, at the current moment, only a potential issue (the first diamond has yet to be sold or really seen by the trade) — while at the same time our industry has already influenced non-disclosure of laser drilling and other treatments. In weighing the methods and



outcomes of laser drilling vs. the GE washing or heating process, in a consumer's opinion, laser drilling is far more unacceptable, since the laser drill scars are left behind. But if GE's development is "tagged" a process rather than a treatment, how can the FTC treat it any differently than the "process of laser drilling"?

The latest news in the laser drilling scenario is that DMIA is "wavering" in its decision to ask the FTC to change or amend the Guidelines. How does one industry group control the decision of the FTC when almost every other trade group supports disclosure of laser drilling to consumers?

One also has to consider the method by which this decision was made. It appears that with the help of our major trade groups, the FTC has abandoned the protection of consumers for the protection of the industry — an act that is hardly their mandate.

Now the trade is running around screaming about disclosure. POL does intend to disclose and whether or not its resellers will is at question with everyone. A double standard seems to have reared its ugly head: jewelers don't like it when they purchase a stone without disclosure, yet it's

OK not to tell consumers. It seems our industry has forgotten that at one level or another, we are all consumers.

THE SOLUTION

Over the many years of diamond trading, those who didn't comply with the rules were banned from the diamond trading bourses. To a degree, I think the plot to extort unfair profits based on a policy of sub-standard ethics and greed for money offering no benefit to anyone but Lazare Kaplan and GE is an outrage to everyone. This is of grave concern to everyone in our industry, from De Beers all the way down to consumers.

I am recommending that every jewelry entity and trade group form an alliance together to demand far more cooperation from GE and Lazare Kaplan.

If they plan to go forward with the injection of these diamonds into the worldwide marketplace, they must make available a method by which we can all detect processed diamonds — not only to protect the trade, but also to protect

consumers, insurance companies and financial institutions worldwide.

My suggested methods would require one or more of the following:

- a non-removable coating that would fluoresce a specific color in short-wave ultraviolet lighting
- a deeply inscribed laser mark indicating that a diamond was processed
- serial numbering to track the ownership of each stone along with a certificate of ownership registered with an independent entity (such as GemPrint Ltd. of Canada)
- GemPrint imaging of each processed stone

I call on GE and Lazare Kaplan to either release the method to detect the process or restrict the sale of the material until one is found and shared with the gemological community before they market these diamonds.

I hope that we can band together and cooperate here. It is in everyone's interest.



Synthetic Moissanite and Synthetic Diamonds Found in Marketplace... Misrepresented As Genuine Diamond!

by Antoinette Matlins, P.G.

Author of *Jewelry & Gems: The Buying Guide and Gem Identification Made Easy* (GemStone Press, Woodstock, VT)

A young woman in Florida buys a lovely antique diamond ring from an antiques show only to learn that it is not diamond but synthetic moissanite.

A young couple buys a 2-carat diamond ring from a jewelry retailer for \$5,000 only to be told by another jeweler to whom they took it for an appraisal that it, too, is synthetic moissanite.

What the jewelry trade has been worried about with regard to synthetic moissanite and synthetic diamond is beginning to become reality: Synthetic moissanite and synthetic diamond are being substituted and misrepresented as natural diamond. Even worse, near-colorless to tinted "white" synthetic diamonds have been found in parcels of unmounted natural diamonds from which they will soon make their way into mounted jewelry to be sold as "diamond."

If this sounds scary to you, that's because it is scary. Many retailers and jewelry salespeople still lack the skill to recognize synthetic moissanite and this puts them — and the entire jewelry industry —

increasingly at risk as more and more synthetic moissanite enters the market. There are those who are experienced in looking at diamonds and could quickly learn to spot synthetic moissanite using just a 10X loupe, or better yet, a dark-field loupe.¹ However, most have never actually seen synthetic moissanite or a sufficient number of stones to feel confident about what they are seeing.

Where synthetic diamond is concerned, the situation is even bleaker. Even experienced gemologists admit that synthetic diamonds are beginning to pose a real challenge. Of particular concern are the "near-colorless" synthetic diamonds now being produced by companies such as Chatham and several Russian laboratories using the new metal-catalyst method. These stones are being produced commercially and pose the greatest risk to retailers. They are available in colors ranging from near-colorless to very tinted off-white (G/H to M/N/O). Even for those with gemological knowledge, the time

Continued on page 8 —

TUCSON POLICE HQ.
February 4, 1999...



HEY, CAPTAIN!
I THINK YOU
BETTER HANDLE THIS!



CAPTAIN BERYL, HERE...
...WHAT? STRANGE, LOUD,
RAUCOUS NOISE? WHERE?
SIT TIGHT! WE'RE ON IT!



THE BRIEFING ROOM...

Marriott University Park

880 East 2nd
AGA Symposium at 9
Dinner Dance



CAPTAIN BERYL RECEIVED
A CALL ABOUT SOME
KIND OF DISTURBANCE AT
THE MARRIOTT UNIVERSITY PARK
AGA'S SYMPOSIUM,
TRYING
EMSI
EVERYONE
-PRONTO!

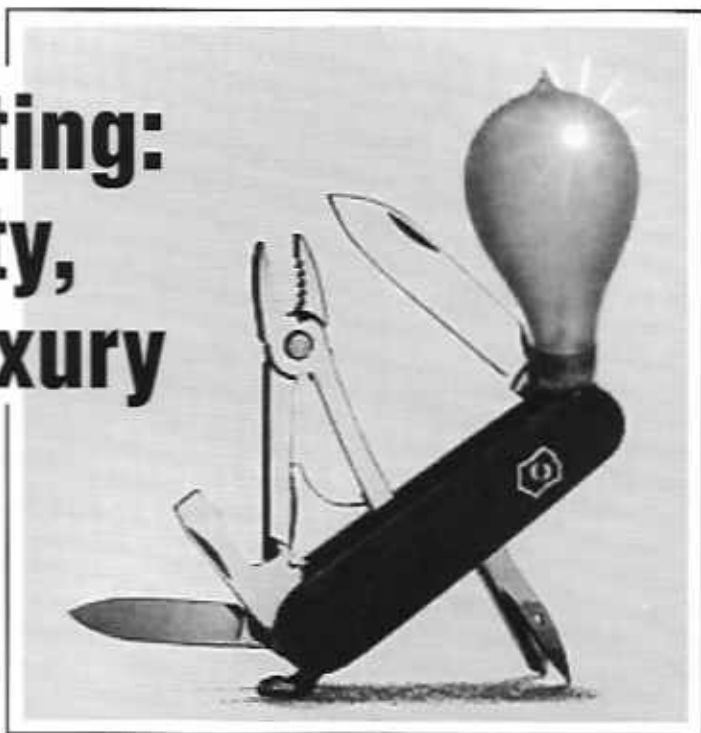
"LET'S BE
CAREFUL
OUT THERE."



Excellent Lighting: A Necessity, not a Luxury

by Manfred Eickhorst, M.Sc. Physics, Germany

(Reprinted with gracious permission
from the Editors of ICA Gazette January/February 1999)



The beauty of gems to the human eye is determined by the gemstone's colour appearance. This beauty is the fascinating result of a unique interaction between light and matter. The human observer can indeed find all the visible colours of our universe in the interior and on the surface of gemstones. It is therefore no wonder that the type of lighting and its origin will have a correspondingly great effect on the way humans assess the beauty of gem colours.

After a million years of evolution, of course, humans feel most familiar with the way objects appear when visible under natural daylight. This source of light, however, is available only on an irregular basis, and does not represent a uniformly dependable standard. Fluorescent lamps, therefore, with their artificial daylight, have since their invention proved an invaluable aid in the sorting of gemstones. When appropriately used, luminaries with fluorescent lamps offer a uniform standard for illumination and colour rendering.

But the major question arises: Which fluorescent lamp is appropriate for all gems? And the answer: There is no such optimal lamp for all applications.

In fact, the great multiplicity of colour-producing elements in a gem require that a compromise be met — in the same manner in which a compromise is necessary when buyers and sellers demand "the perfect light" for some particular purpose.

The standard of quality for fluorescent lamps is exclusively their colour rendering in comparison to natural daylight. In this context, the colour of light — characterised by its colour temperature — is an entirely independent factor.

The selection of the colour temperature of

lamps for use with gems is oriented to CIE stipulations for the standard illuminants D 55 and D 65. For diamonds, the colour temperature is 6500 K, a temperature definitely in the blue-white range. For coloured gems, the temperature is 5500 K, which produces a more neutral-white colour appearance. An International Colour Code now applies for the designation of lamps; this code stipulates the colour rendering index (CRI) as well as the colour temperature. If a lamp carries the inscription D15W/950, this signifies a lamp wattage of 15 watts. The number "9" means a CRI in the range of 90 ... 100. The double number "50" stands for a colour temperature within the range 5000 ... 5500 K. The prefix "D" indicates the daylight characteristics of the lamp. New lamps that carry no colour code are frequently inferior in quality.

An additional standard is the luminous flux emitted by a lamp. In considering this standard, it is important to remember that the quantity indicated is provided in reference to the length of the lamp. As a result, the typical total luminous flux from a conventional no-name, 15-watt lamp could be 720 lumens, over a length of 440 mm. With almost the same length, a high-end compact fluorescent lamp will produce 2000 lm. In the same sense, an illumination photometer will measure approximately 3000 lux from a conventional lamp at a distance of 300 mm (approximately 1 foot). With a state-of-the-art lamp type, the output will be approximately 6000 lux: i.e., almost twice as much.

In working with gems, a high value of illuminance is essential for a number of reasons:

- Fatigue and headaches will not occur so soon
- Red colours are easier to evaluate
- Good illumination is an aid for elderly persons, whose eyes require 50% more light than young eyes for the same visual efficiency

However, highly transparent gems — amethysts, for example, as well as bluish specimens — represent exceptions to these rules. For these stones, less light is often more pleasant for colour matching.

Progress in the technology of ballasts has resulted in a new generation of electronic ballast systems. For the first time, these devices now make it possible to dim fluorescent lamps on desktop luminaries. As a result, the user can adjust the illumination level to that which is most pleasant for his or her eyes and daylight conditions. These electronic comfort lights offer another essential characteristic: they are flicker-free, which is a boon for daily work under artificial light. A welcome additional side effect is the savings in energy, and around 50% longer service life of the fluorescent lamps.

Experience gained with the new compact fluorescent lamps has revealed that the combination of 5500 and 6500 K lamp types in one luminaire represents the optimal kind of light for coloured stones. This arrangement makes it possible to create an optimal colour balance: another boon for the eyes and for professional work. ■

Synthetic

— Continued from page 5

required to test every diamond in parcels or jewelry pieces using standard gemological procedures and equipment is problematic from a practical viewpoint.

So much for the bad news; now for the good news! A new instrument has been developed that, when used in conjunction with a standard electronic diamond tester, should eliminate the fear and worry about separating these newcomers from genuine diamond. It is the Moissketeer 2000 SD. This is a new version of the earlier Moissketeer and, according to manufacturer Larry Frizzell, has been found to distinguish both — synthetic moissanite and synthetic near-colorless diamond¹ made by the metal-catalyst method — from genuine diamond.²

To confirm these claims, I conducted my own tests using the Moissketeer 2000 SD on genuine diamond, synthetic moissanite and synthetic near-colorless diamonds. I was pleased to find that it was very reliable and problems present in an earlier model seem to have been eliminated. Following the instructions provided with the 2000 SD, I tested my stones first with a standard electronic diamond tester.³ At this point, I also tested some other diamond imitations, including YAG, CZ, strontium titanate, synthetic corundum and synthetic spinel. Using the standard electronic diamond tester on all of the samples, I was able to eliminate



the YAG, CZ, strontium titanate, synthetic corundum and synthetic spinel immediately; the standard electronic diamond tester indicated "imitation" on each of these stones, so no further testing was necessary.

When I tested genuine diamond, synthetic moissanite and synthetic diamond samples with the standard electronic diamond tester, "diamond" was indicated (which is to be expected with these stones). I then tested them with the Moissketeer 2000 SD, which quickly separated both the synthetic moissanite and synthetic diamond from the natural diamond in 100% of my sample stones!

I believe the Moissketeer 2000 SD is a valuable tool for anyone concerned about synthetic moissanite and the new near-colorless synthetic diamonds. And while it won't detect all synthetic diamonds, it is nonetheless a valuable tool that can significantly reduce the risk for dealers and retailers that is now posed by the availability of these products in the marketplace.⁴ It can greatly improve the users' ability to detect them and thus reduce

the risk of inadvertently buying or selling a synthetic diamond as a natural diamond. ■

FOOTNOTES:

1. Synthetic moissanite exhibits distinctive inclusions and other characteristics such as doubling of the back facet edges that make it readily distinguishable from diamond.
2. The Moissketeer is not reliable for synthetic fancy-color yellow diamonds.
3. It may not detect some of the earlier types of near-colorless synthetic diamonds. However, there are very few of these in circulation and it is my opinion that the real risk to retailers is with the new types.
4. While experienced buyers would not normally confuse synthetic corundum or synthetic spinel with diamond because they exhibit much lower brilliance and dispersion than diamond (and, thus, don't really look like it), some standard electronic diamond testers indicate "diamond" when testing synthetic colorless spinel and synthetic spinel and synthetic sapphire (see article in the Rapaport Diamond Report, November 7, 1997). The Moissketeer may then also fail to distinguish between them and genuine synthetic corundum diamond. If in doubt, the fastest and easiest way to be sure you do not have synthetic corundum or spinel is to view the stone in question under an ultraviolet lamp that provides both long- and short-wavelengths. Under short-wave ultraviolet, synthetic corundum will glow a strong milky blue-white and the synthetic spinel will glow a strong neon orange! Under long-wave, what you saw will be much weaker, or not visible at all. (Long-wave/short-wave ultraviolet lamps start at about \$60. for a reliable portable model.) For more on spotting a wider range of diamond imitations, including synthetic diamond and moissanite, see the 2nd Edition of *Gem Identification Made Easy* by Matlins and Bonanno, GemStone Press, 800-962-4544.

Please send me a membership application for Accredited Gemologists Association

Name: _____

Address: _____

City: _____

Phone: (_____) _____

Fax: (_____) _____

Application Guidelines

Membership with full voting privileges is available to professionals holding gemological diplomas from accepted institutions.
Associate Membership is available to students of gemology and avocational gemologists.
Supplier Membership is available to providers of goods and services to the gem & jewelry industry.

AGA will not discriminate against any applicant based upon race, creed, color, national origin, age or gender. Applicants are required to meet substantial member qualifications, and to adhere to the AGA Code of Ethics.

Application Guidelines

\$25 Processing Fee (one-time, non-refundable) will be retained by AGA.
\$100 Voting Member Dues.
\$75 Associate Member Dues.
\$50 Student Member Dues.
\$150 Supplier Member Dues.
Make checks payable to Accredited Gemologists Association, in U.S. funds.
Membership is renewable annually
(Voting \$100, Assoc. \$75, Student \$50, Supplier \$150).

Return This Request to:

AGA
3309 Juanita Street
San Diego, CA 92105