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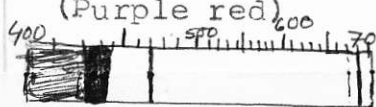

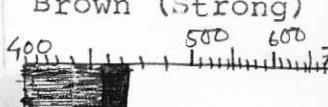
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दिनांक/Date.....14/11/95.

LAB INFORMATION CIRCULAR No. 014

During the month of October '95 unusual stones examined at the Gem Testing Laboratory, Jaipur were Nat. Alexandrite Cat's Eye Nat. Colour Changing Garnet and strongly pleochroic Epidote. We were informed by the dealers that these stones were from an Indian Source i.e. Orissa and Andhra Pradesh.

The properties observed were typical for the species and were recorded as follows: for cut specimens.

	Nat. Alexandrite (Cat's Eye)	Nat. Garnet (Colour changing)	Epidote
Size	1 ct. to 6 ct.	Less than 1 ct.	1 ct. to 4 ct.
Colour	Bluish green, Brownish green with Colour change green to purple red or brownish red	Purplish blue with Colour changing blue to purple red	Deep brownish green.
S.G. (Hydrostatic)	3.78	Ranged from 3.71 to 4.10	3.35
Inclusions	Silk, growth zoning, phase and fingerprints.	Silk, net like fingerprints and crystals	Highly reflecting liquid fingerprints two directional cleavage cracks strong doubling.
Pleochroism	Bluish green/ Brownish green/ Brownish red (Purple red)	NIL	Green/brown/ Yellowish Brown (Strong)
Spectrum			
Percentage of Colour Change	Appx. 40%-70%	Appx. 50%	-

Other properties were typical for the species.

I.G.C.-95: International Gemmological Conference conducted between 23rd October and 28th October '95 at Rayong, Bangkok, Thailand. From India Mrs. S. Fernandes (G.T.L., Jaipur) and Dr. J. Panjekar (G.I.I., Bombay) participated. Papers presented were as follows:

1. Dereppe and Moreaux - Recent Applications of NMR to the Study of Gemstones.
2. Lasnier, Talay, and LeFrant - A New Portable Raman Spectrometer for Industrial Applications: Especially Adapted for Gemmological Characterizations.
3. Nelson - The Identification of Sub-surface Inclusions with Raman Spectroscopy.
4. DuToit - Raman Spectroscopy and its Usefulness in Identifying Various Internal Features within Gemstones.
5. Harding - The Brewster Angle Meter.
6. Sutherland, Coenraads, and Webb - Ruby from Barrington Volcanic field, East Australia - Implications for the Thai Ruby Sources.
7. Zoysa and Zwaan - Scapolites from Sri Lanka
8. Henn - Gem Quality Garnets from Mali.
9. Hanni - The Deposit and Sapphires from Southern Madagascar.
10. Tay - Nuclear Microscopy on Ruby
11. Schmetzer - Some Properties of Russian Flux Grown Synthetic Alexandrite.
12. Arps and Zwaan - Green Beryls and Emeralds from Central Nigeria.
13. Bosshart - Sapphires and Rubies from Laos
14. Chikayama - Gemstones of China II
15. Rough - Red Beryls
16. Schwarz - Mineralogical Aspects of Emerald Genesis
17. Arps - Tektites: Their Origin Properties and Use.
18. Saul - "Electrum" in Antiquity: Why did it Signify both Amber and the Alloy of Gold and Silver.
19. Levingson - Diamond Economics; selected Aspects
20. Jobbins - Interesting Diamonds from the Victoria and Albert Museum, London.
21. Eliezri - Distribution of Diamond and Gemstones Deposits in Relation with Plate Tectonics and Possible Future findings.
22. H. Hanni - Optical / Chemical Analysis of Merelani Zoisite.

23. Sevdermish - The Effect of Heat Treatment of Tanzanite.
24. Thiramongkol - The Influence of the Environment of Heat Treatment of Corundum.
25. Poirot - An Achemenid Treasure from Suze
26. Sapalski - Spanish Treasures.
27. Graziani - Gems from Excavations of Crypta Balbi (Rome)
28. Payette - Natural Freshwater Pearls from Lac St Jean Area
29. Brown - Some Unusual Pearls.
30. Koivula - New and Unusual Inclusions
31. Gubelin - The Significance of Mineral Inclusions in Quartz.
32. Ou Yang - Laboratory Experiment on the Aging of Treated Jadeite.
33. Shida - Finger Print of Natural Diamonds - Observations by Cathodoluminescence.
34. Sunagawa - Finger Printing of Two brilliants X-ray Topographic and Cathodoluminescence Tomographic Study.
35. J. Nelson - Teaching Aids / Equipment.
36. O. Navon - Fluid inclusions in Diamond.
37. Hansawek and Pattamalai - Geological and Gemological Aspects of Kanchanaburi Sapphire.
38. Gray - The role of the Lapidary in Gemmological Research
39. Panjekar - New Emerald Deposits from Southern India.
40. Superchi - Some Recent Observations at the CISGEM Laboratory.
41. Atichat - Spectroscopic Approach to Corundum from Chantaburi Trat. and Kanchanaburi Provinces in Relation to their Genesis.
42. Kane - Montana Sapphires and their Reaction to Heat Treatment.
43. Zecchini - Identification of Natural and Artificial Crystallization and Impregnation of Emeralds.

If you require any information about these papers you may write to us at G.T.L., Jaipur or directly to Mr. Scarrat, Asian Institute of Gemological Sciences, 919/1 Silom Road, Jewelry Trade Center, South Tower 11 floor, Bangkok 10500, Thailand.

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For Gem Testing Laboratory.