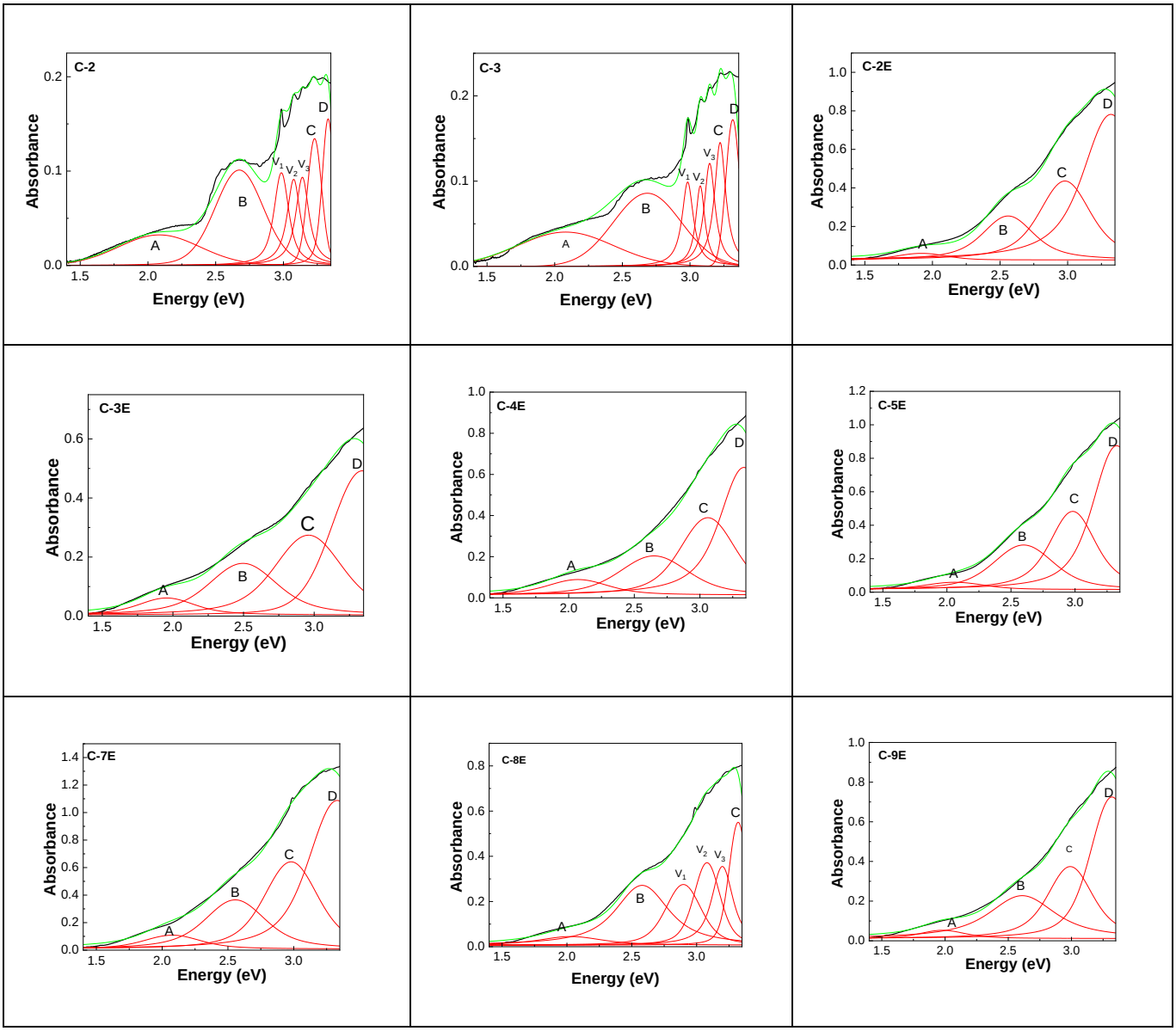
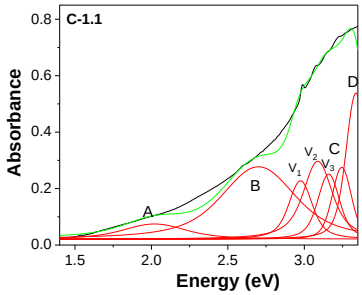
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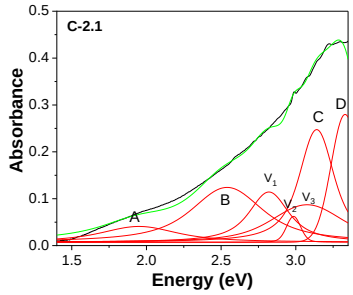
Supplementary Material: Traceability of diamonds using UV-VIS-NIR spectroscopy

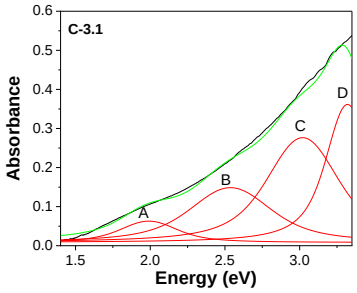
David Giurgiu [1, 2, 3] , Ion Smaranda[4], Adelina Udrescu[4] and Mihaela Baibarac [4,*]

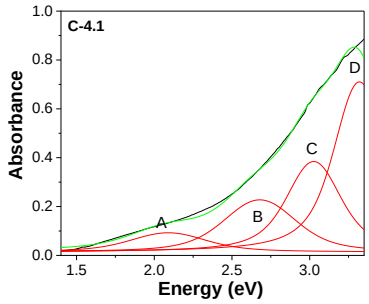
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[2] Physics Faculty, University of Bucharest, Strada Atomiştilor 405, 077125 Bucharest, Romania;
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[4] National Institute of Materials Physics, Atomistilor Street 405A, 077125 Bucharest, Romania;ion.smaranda@infim.ro; adelina.udrescu@infim.ro; barac@infim.ro
* Correspondence: barac@infim.ro.

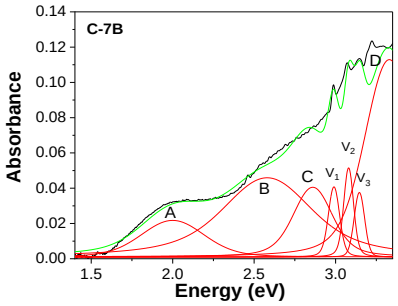


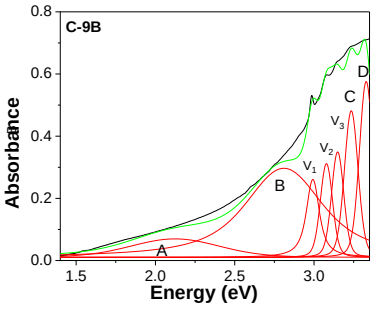

C-1.1
Absorbance
Energy (eV)
A
B
C
D
V1
V2
V3

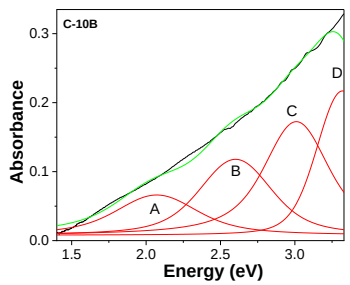

C-2.1
Absorbance
Energy (eV)
A
B
C
D
V1
V2
V3

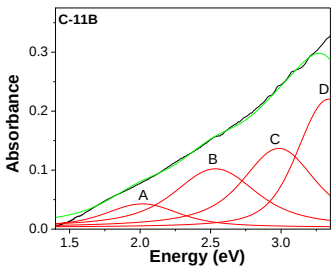

C-3.1
Absorbance
Energy (eV)
A
B
C
D

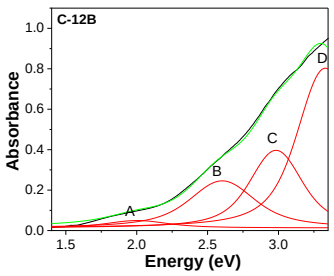

C-4.1
Absorbance
Energy (eV)
A
B
C
D

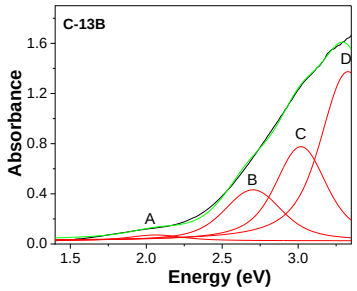

C-7B
Absorbance
Energy (eV)
A
B
C
D
V1
V2
V3

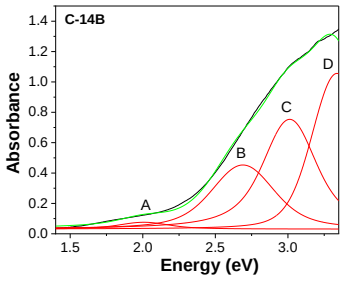

C-9B
Absorbance
Energy (eV)
A
B
C
D
V1
V2
V3

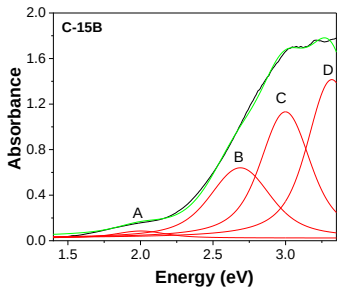

C-10B
Absorbance
Energy (eV)
A
B
C
D

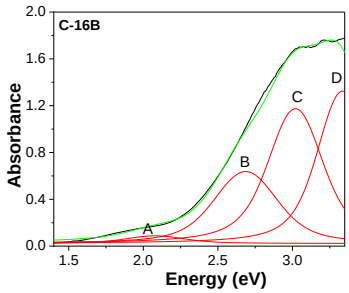

C-11B
Absorbance
Energy (eV)
A
B
C
D

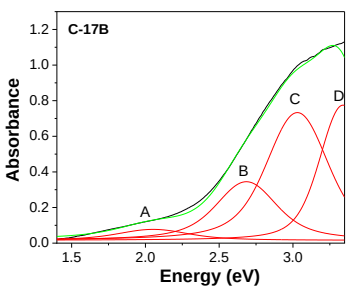

C-12B
Absorbance
Energy (eV)
A
B
C
D

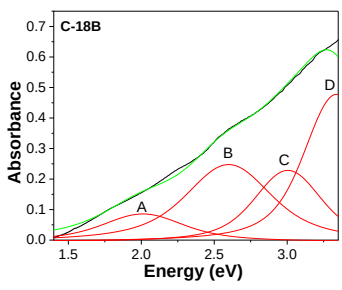

C-13B
Absorbance
Energy (eV)
A
B
C
D

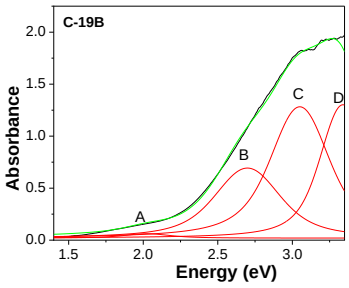

C-14B
Absorbance
Energy (eV)
A
B
C
D

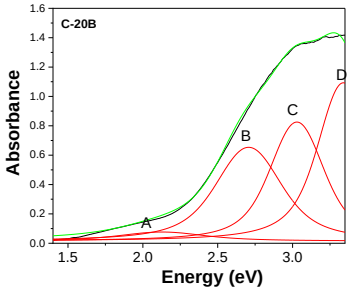

C-15B
Absorbance
Energy (eV)
A
B
C
D

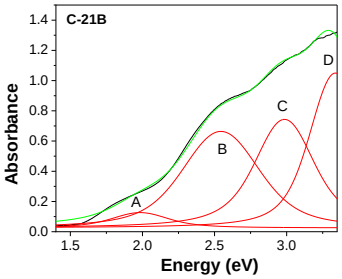

C-16B
Absorbance
Energy (eV)
A
B
C
D

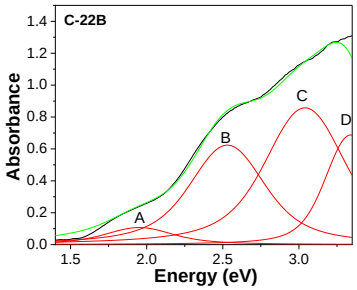

C-17B
Absorbance
Energy (eV)
A
B
C
D

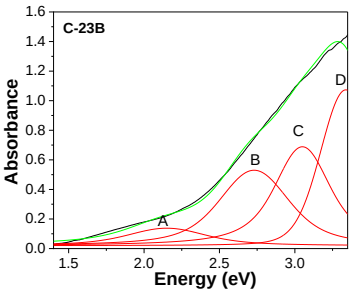

C-18B
Absorbance
Energy (eV)
A
B
C
D

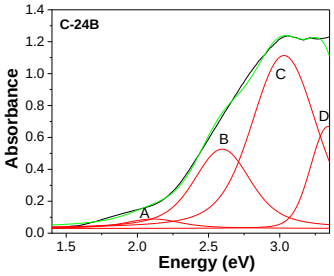

C-19B
Absorbance
Energy (eV)
A
B
C
D

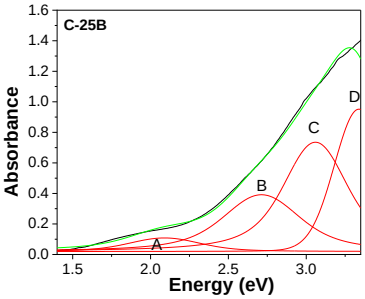

C-20B
Absorbance
Energy (eV)
A
B
C
D

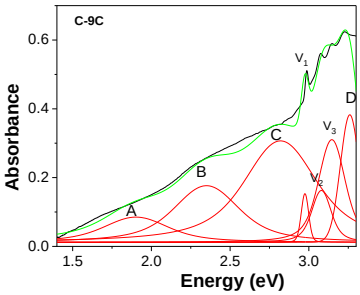

C-21B
Absorbance
Energy (eV)
A
B
C
D

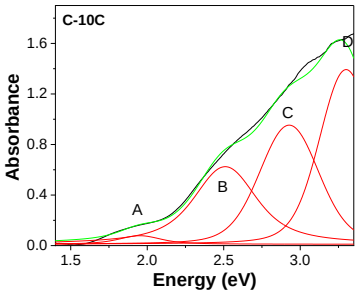

C-22B
Absorbance
Energy (eV)
A
B
C
D

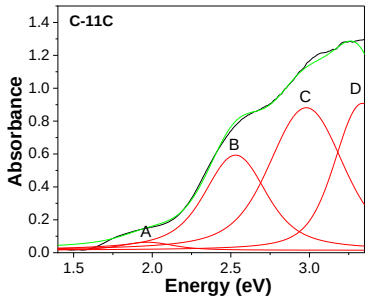

C-23B
Absorbance
Energy (eV)
A
B
C
D

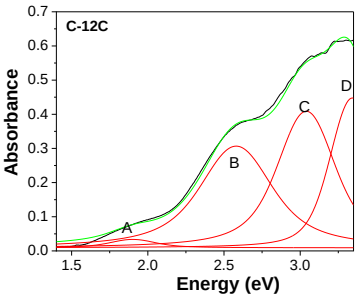

C-24B
Absorbance
Energy (eV)
A
B
C
D

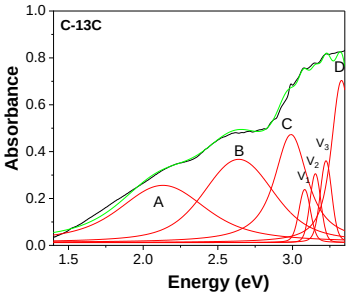

C-25B
Absorbance
Energy (eV)
A
B
C
D


C-9C
Absorbance
Energy (eV)
A
B
C
D
V1
V2
V3


C-10C
Absorbance
Energy (eV)
A
B
C
D


C-11C
Absorbance
Energy (eV)
A
B
C
D


C-12C
Absorbance
Energy (eV)
A
B
C
D


C-13C
Absorbance
Energy (eV)
A
B
C
D
V1
V2
V3

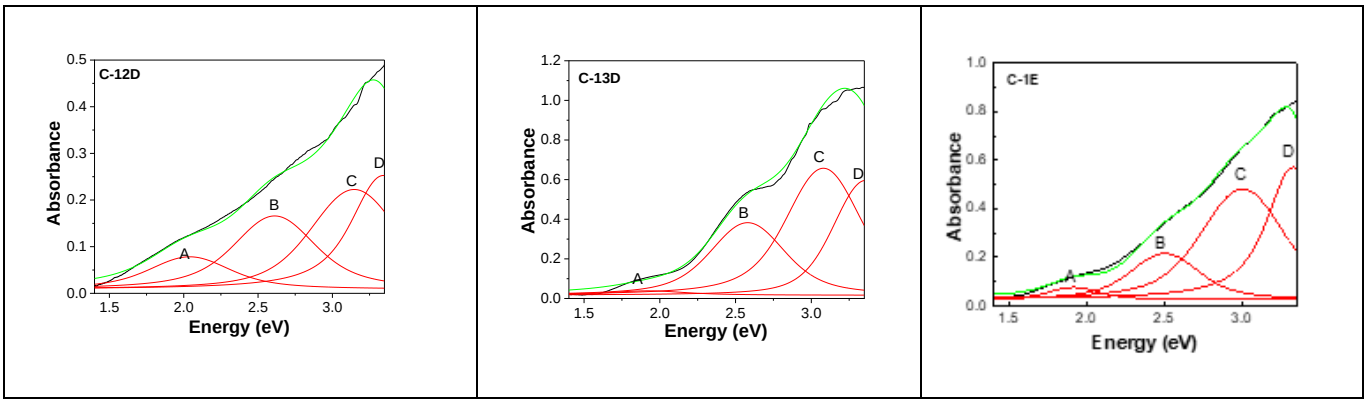


Figure S1. UV-VIS-NIR spectra of diamonds from Cullinan Mine and their deconvolution: C-2; C-3,; C-2E; C-3E; C-4E; C-5E; C-7E; C-8E; C-9E; C-1.1; C-2.1; C-3.1; C-4.1; ; C-7B, C-9B C-10B; C-11B; C-12B; C-13B; C-14B; C-15B; C-16B; C-17B; C-18B; C-19B; C-20B; C-21B; C-22B; C-23B; C-24B; C-25B; C-9C; C-10C; C-11C; C-12C; C-13C; C-12D; C-13D, and C-1E. Black, green, and red curves correspond to the experimental spectrum, the total fit of each spectrum, and the individual components of the spectral deconvolution.

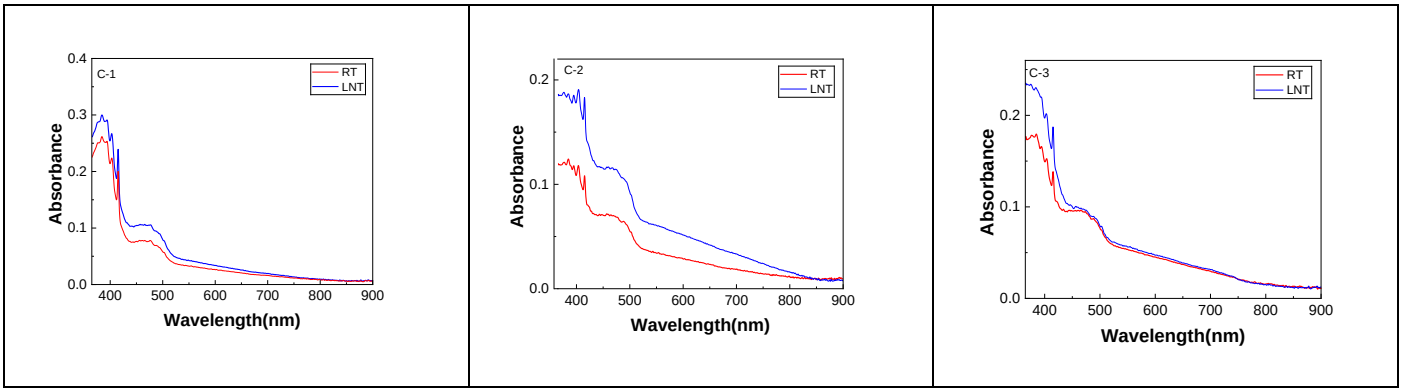


Figure S2. UV-VIS-NIR spectra at RT (red curve) and LNT (blue curve) of the samples labelled as C-1, C-2, and C-3.