

The effects of thermal treatment and irradiation on the chemical properties of natural diamonds

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Keywords: Diamonds, Color enhancement treatments, Stable carbon radicals, EPR spectroscopy, FTIR, Diamond optical centers, Diamond paramagnetic centers.

Supporting Information

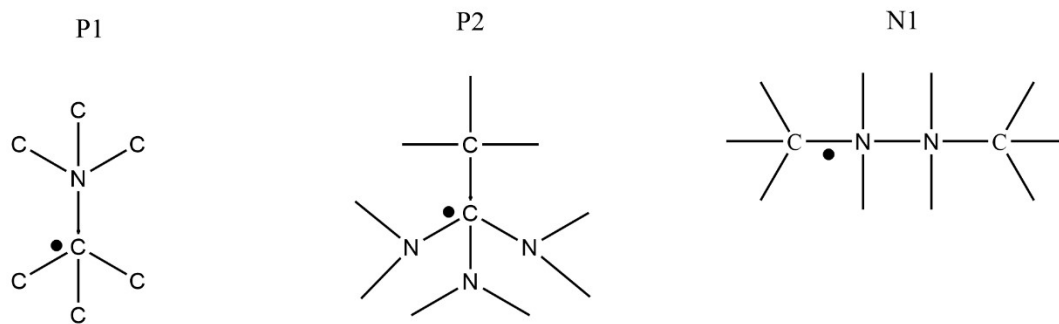


Figure S1: Diagrammatic structures of the paramagnetic centers P1, P2 and N1

Sample Group	1	2	3	4	5
Green	+++	+	+++	++++	++
Blue	+++	+	++++	+++	++
Yellow	++	++++	+	+++	++++

Table S1: The level of darkness for the five samples for each color group after the final treatments: i) green (post irradiation only), ii) blue, and iii) yellow after irradiation and thermal treatments. (Intensity was graded from + (low) to ++++ (high) intensity by visual assessments.

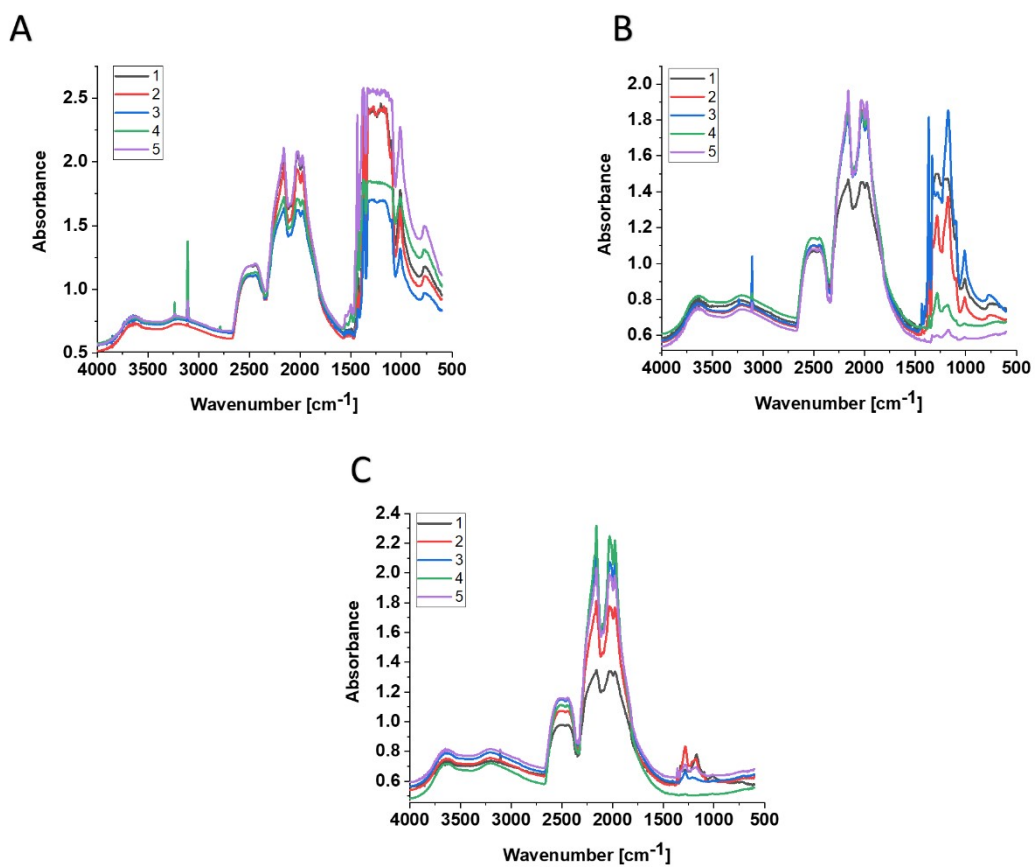


Figure S2: Raw FTIR spectra of the fancy diamonds after treatments: green (post irradiation only), blue, and yellow for all samples A) Green, B) Blue and B) Yellow

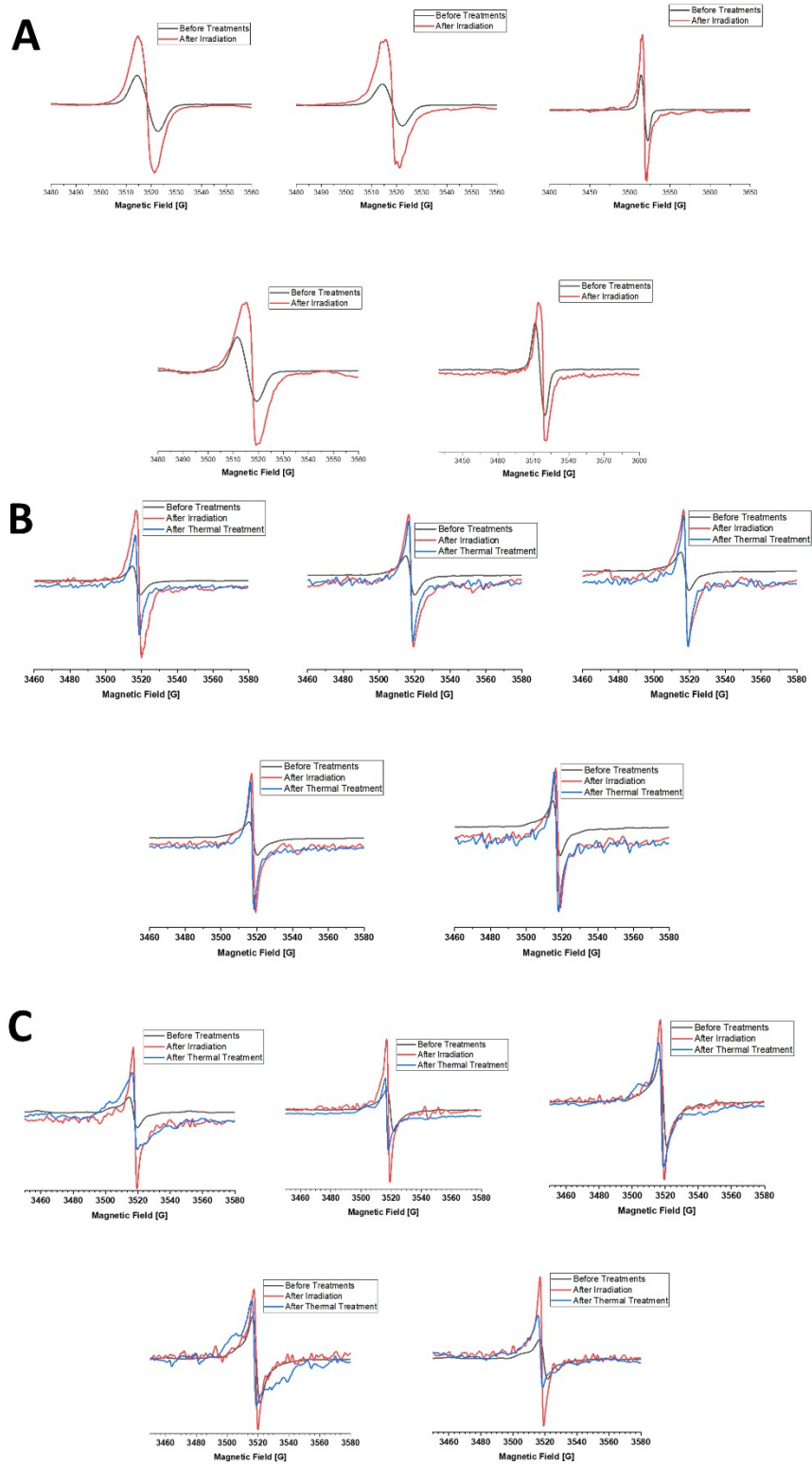


Figure S3: EPR spectra before and after treatments for all samples: A) Green (irradiation only), B) Blue and C) Yellow