

Supplementary Information

Degradation of Phenylethylamine and Tyramine by Gamma Radiation Process and Docking Studies of its Radiolytes

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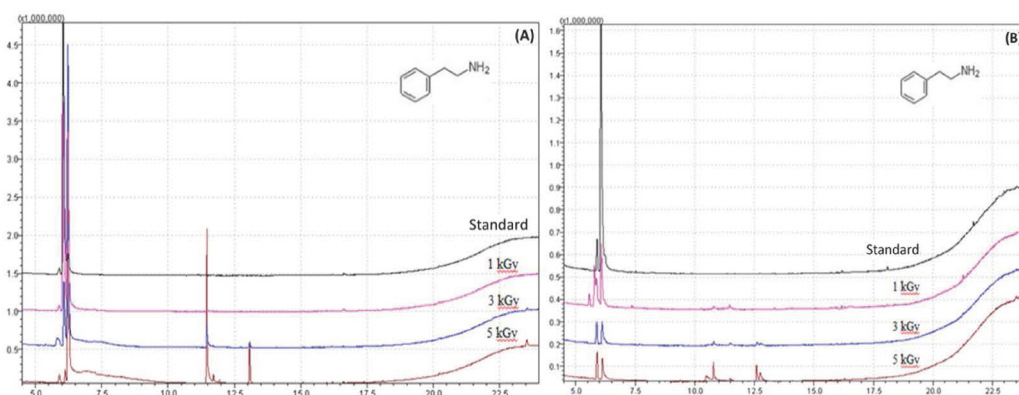


Figure S1. Chromatograms of the methanolic (A) and aqueous (B) solutions of phenylethylamine after irradiation at different doses. Mode: scan; Column: RTX-5MS (5% diphenyl/95% dimethyl polysiloxane); Ramp: 2 min, 80 °C; 10 °C min⁻¹, 80 °C to 280 °C.

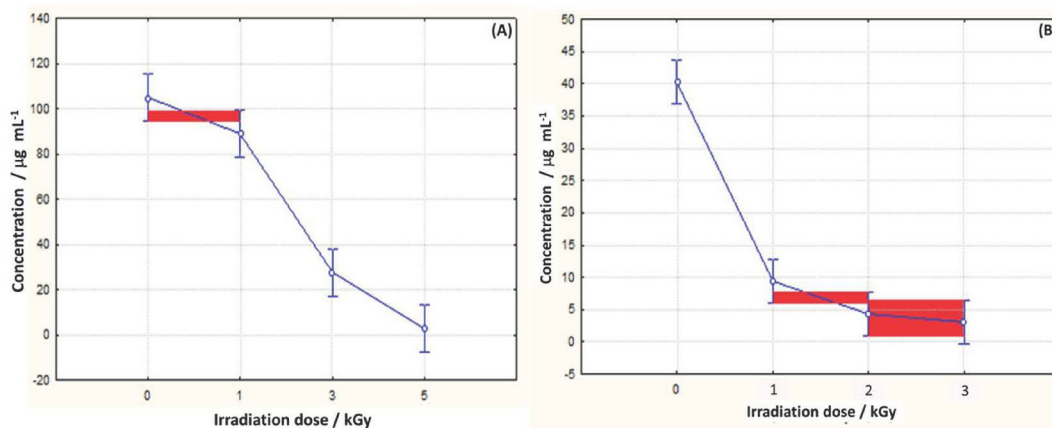


Figure S2. Plot of the phenylethylamine concentration vs. irradiation dose for the methanolic solutions (A) and the aqueous solutions (B).

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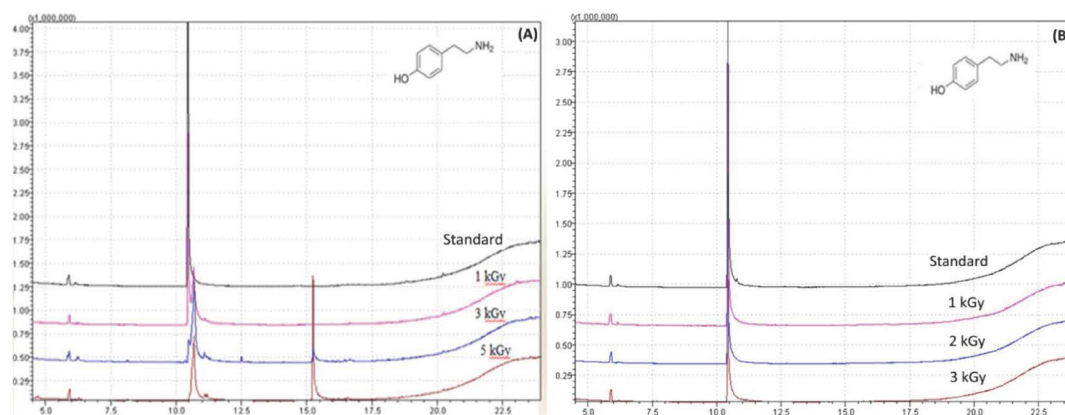


Figure S3. Chromatograms of the methanolic (A) and aqueous (B) solutions of tyramine after irradiation at different doses. Mode: scan; Column: RTX-5MS (5% diphenyl/95% dimethyl polysiloxane); Ramp: 2 min, 80 °C; 10 °C min⁻¹, 80 °C to 280 °C.

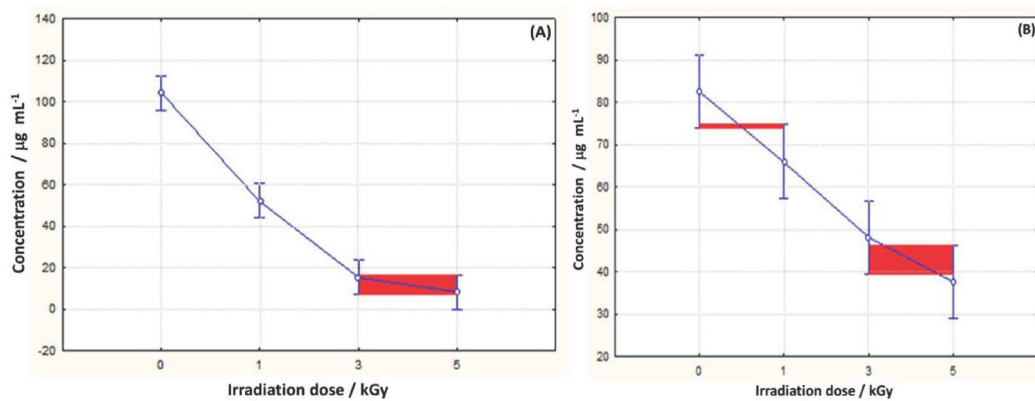
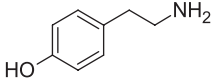
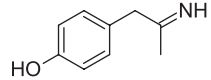
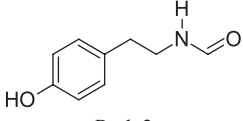
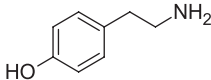


Figure S4. Plot of the tyramine concentration vs. irradiation dose for the methanolic solutions (A) and the aqueous solutions (B).

Table S1. Main peaks in the chromatograms of the methanolic and aqueous solutions of tyramine irradiated at different doses

Analytes	t_R / min	Average area of the peak at each dose			
		Standard	1 kGy	3 kGy	5 kGy
Methanolic solutions					
 Tyramine	10.66	13446888	6279797	1209809	225518
 Peak 1	10.81	–	5753838	7722443	5671843
 Peak 2	15.36	–	–	840704	4591475
Aqueous solutions					
 Tyramine	10.78	10439435	8177844	5690438	4266855