

Supplementary Information

Radio-Oxidation of Electric Cabled Models: Ageing Evaluation at the Atomic Scale

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1. C-1s spectra

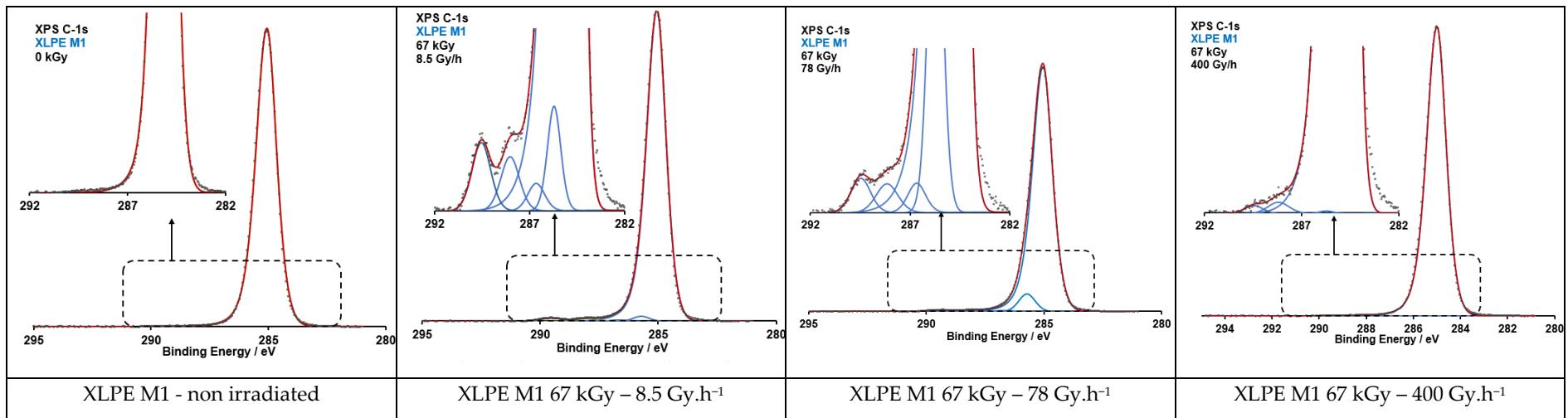


Figure S1. C-1s XPS spectra of XLPE M1 irradiated at 67 kGy and at three dose rates (i.e., 8.5, 78 and 400 Gy/h).

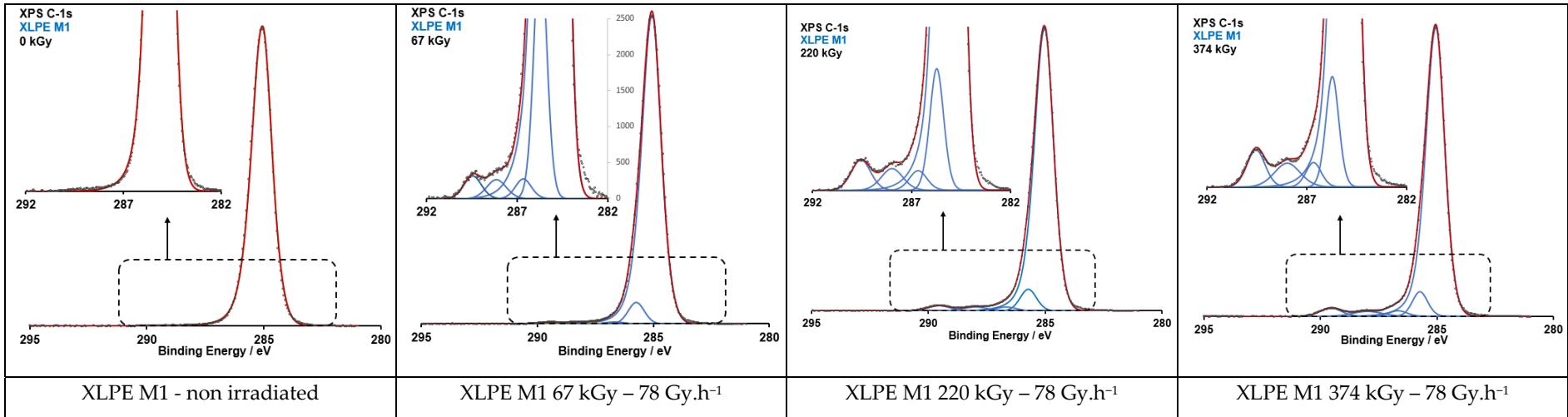


Figure S2. C-1s XPS spectra of XLPE M1 irradiated at 78 kGy/h and at three dose (0, 67, 220, 374 kGy).

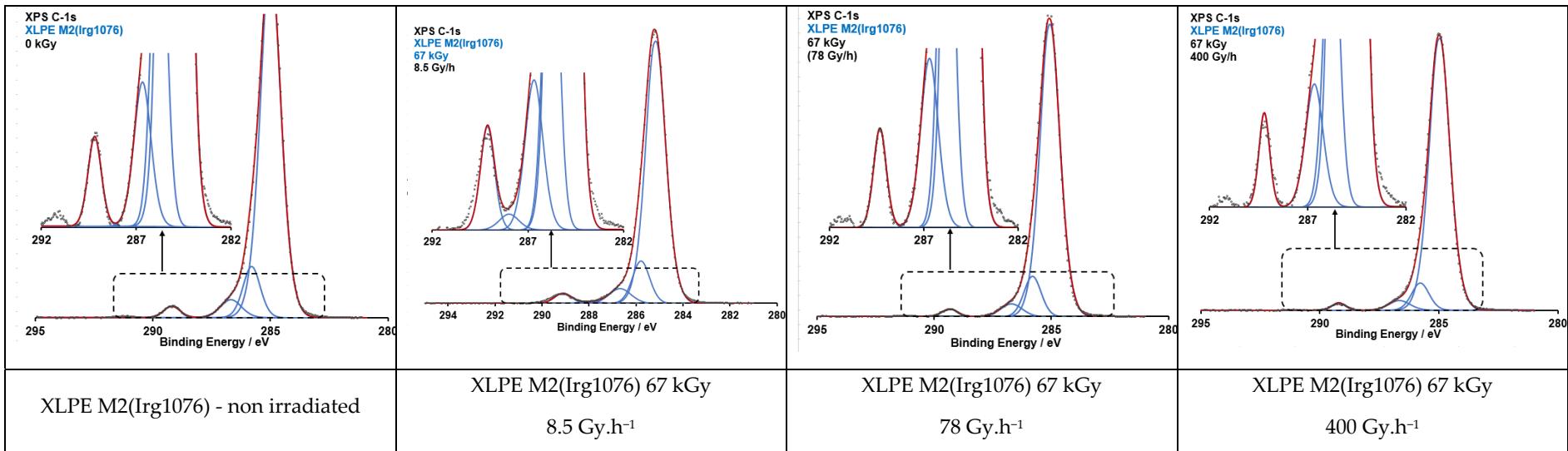


Figure S3. C-1s XPS spectra of XLPE M2(Irg1076) irradiated at 67 kGy and at three dose rates (i.e., 8.5, 78 and 400 Gy/h).

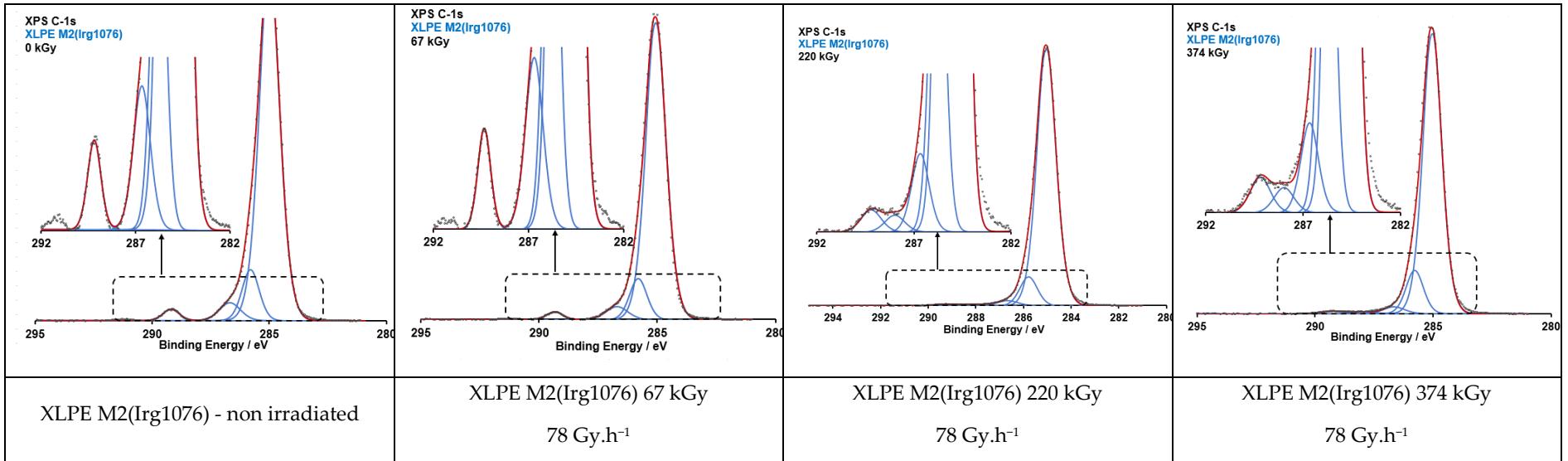


Figure S4. C-1s XPS spectra of XLPE M2(Irg1076) irradiated at 78 kGy/h and at three dose (0, 67, 220, 374 kGy).

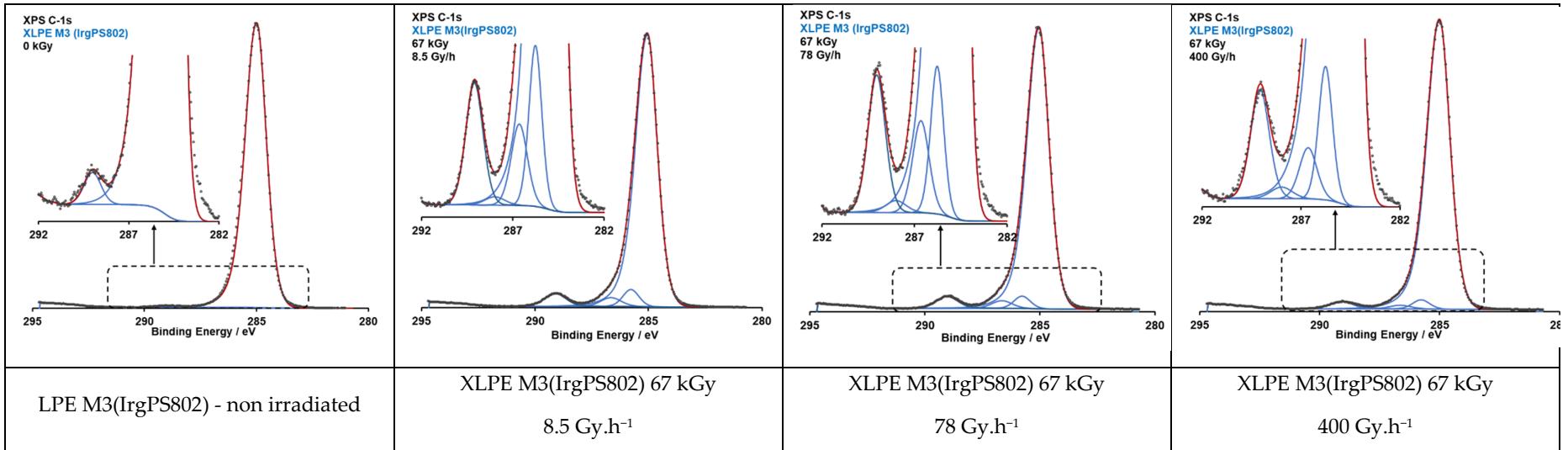


Figure S5. C-1s XPS spectra of XLPE M3(IrgPS802) irradiated at 67 kGy and at three dose rates (i.e., 8.5, 78 and 400 Gy/h).

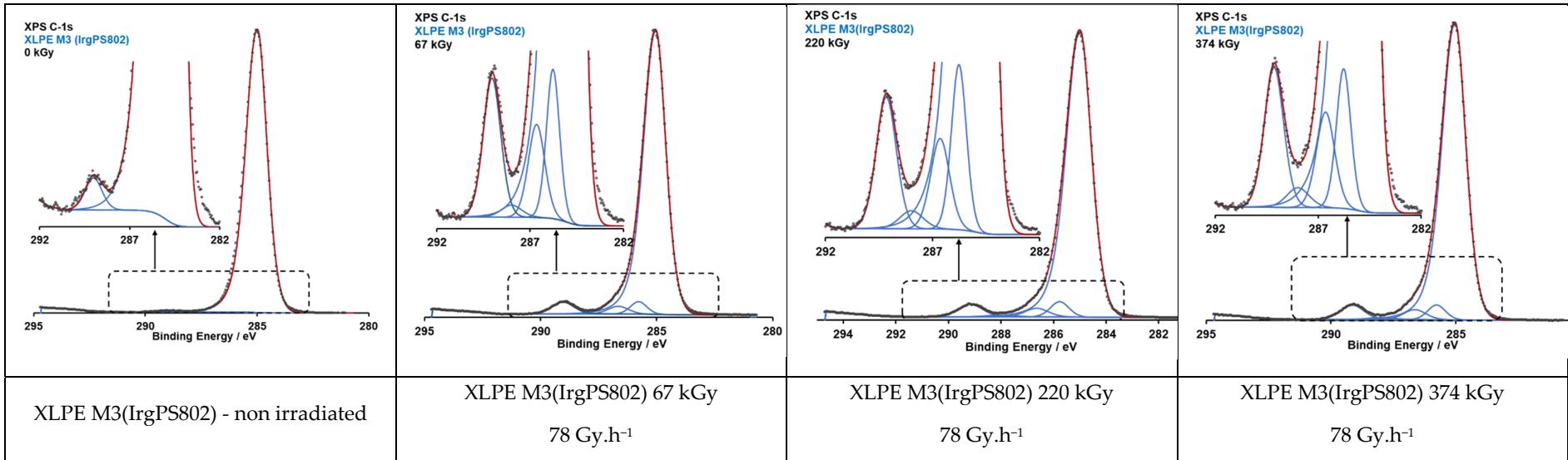


Figure S6. C-1s XPS spectra of XLPE M3(IrgPS802) irradiated at 78 kGy/h and at three dose (0, 67, 220, 374 kGy).

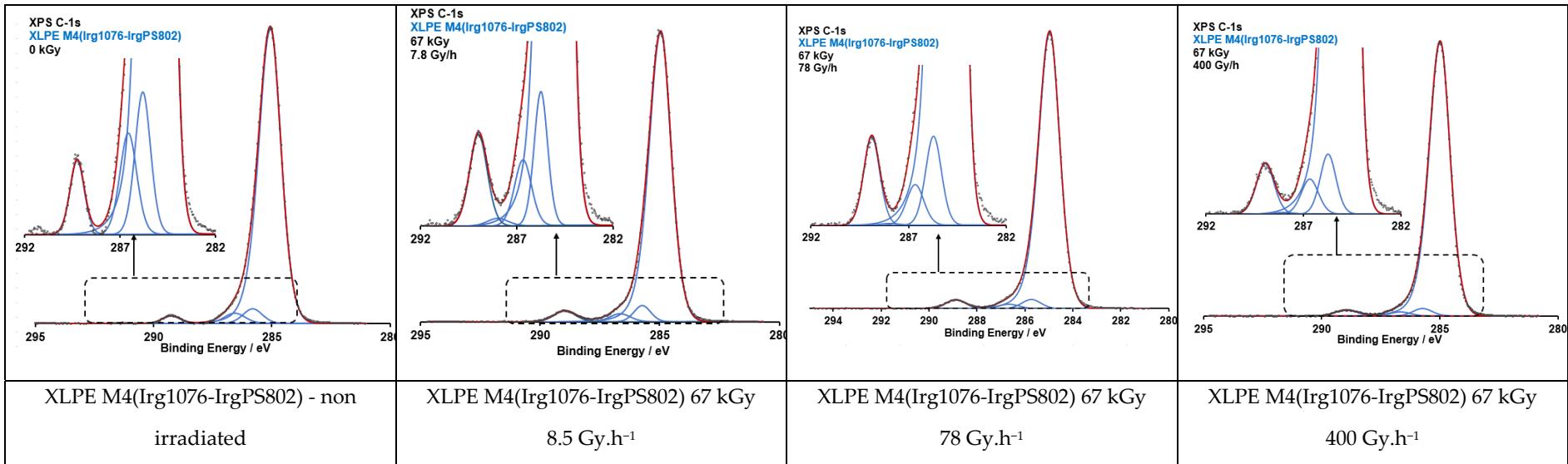


Figure S7. C-1s XPS spectra of XLPE M4(Irg1076-IrgPS802) irradiated at 67 kGy and at three dose rates (i.e., 8.5, 78 and 400 Gy/h).

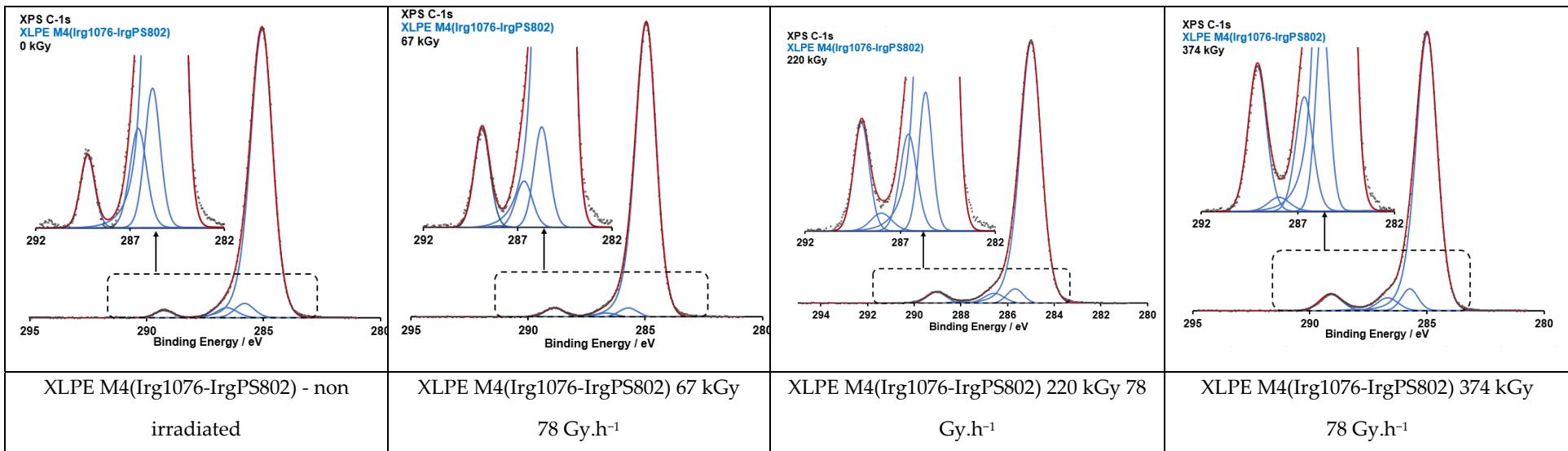


Figure S8. C-1s XPS spectra of XLPE M4(Irg1076-IrgPS802) irradiated at 78 kGy/h and at three dose (0, 67, 220, 374 kGy).

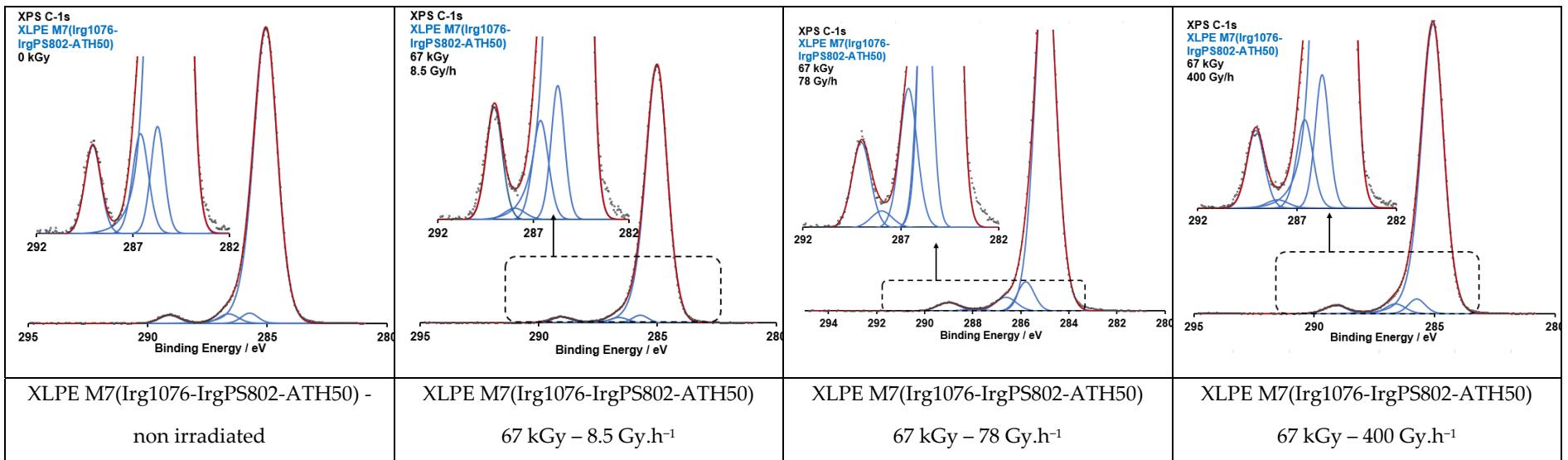


Figure S9. C-1s XPS spectra of XLPE M7(Irg1076-IrgPS802-ATH50) irradiated at 67 kGy and at three dose rates (i.e., 8.5, 78 and 400 Gy/h).

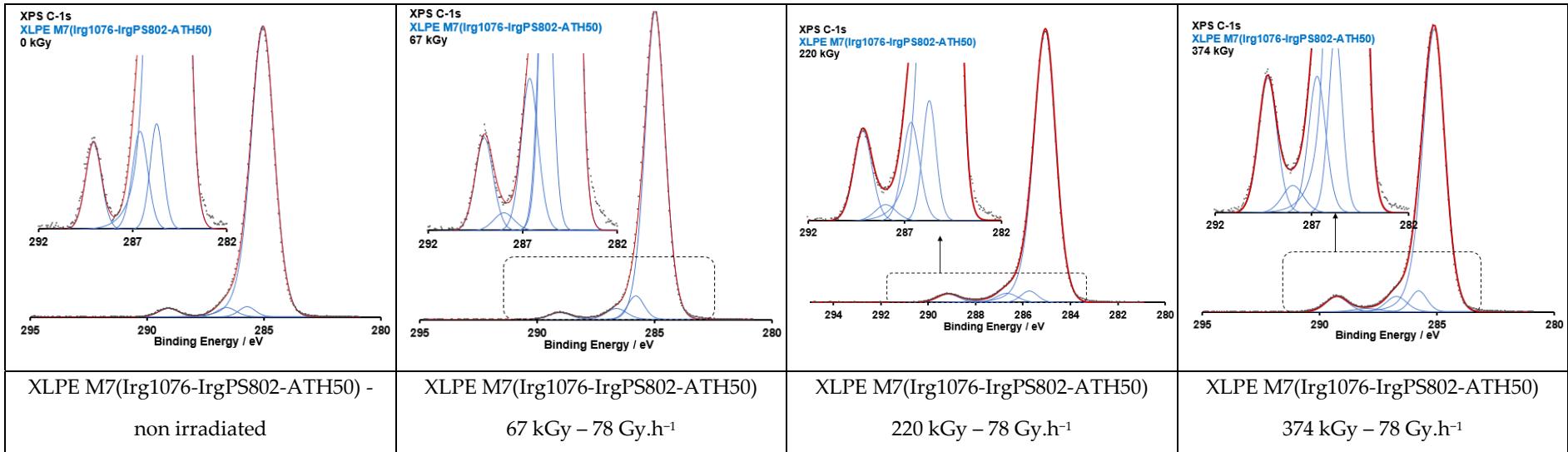


Figure S10. C-1s XPS spectra of XLPE M7(Irg1076-IrgPS802-ATH50) irradiated at 78 kGy/h and at three dose (0, 67, 220, 374 kGy).

2. S-2p spectra

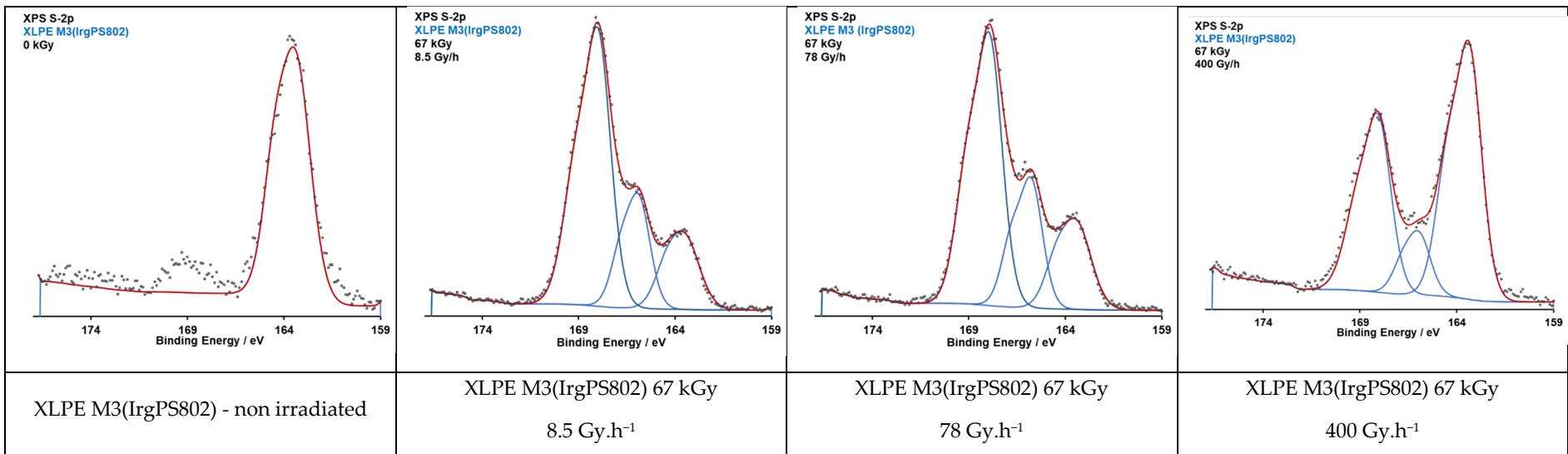


Figure S11. S-2p XPS spectra of XLPE M3(IrgPS802) irradiated at 67 kGy and at three dose rates (i.e., 8.5, 78 and 400 Gy/h).

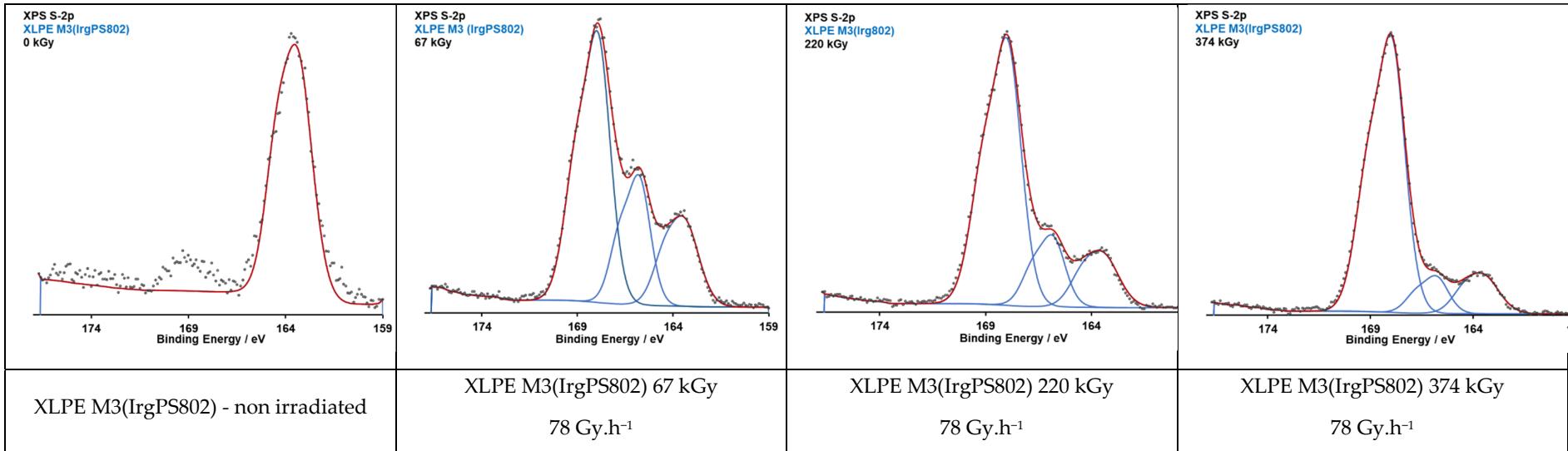


Figure S12. S-2p XPS spectra of XLPE M3(IrgPS802) irradiated at 78 kGy/h and at three dose (0, 67, 220, 374 kGy).

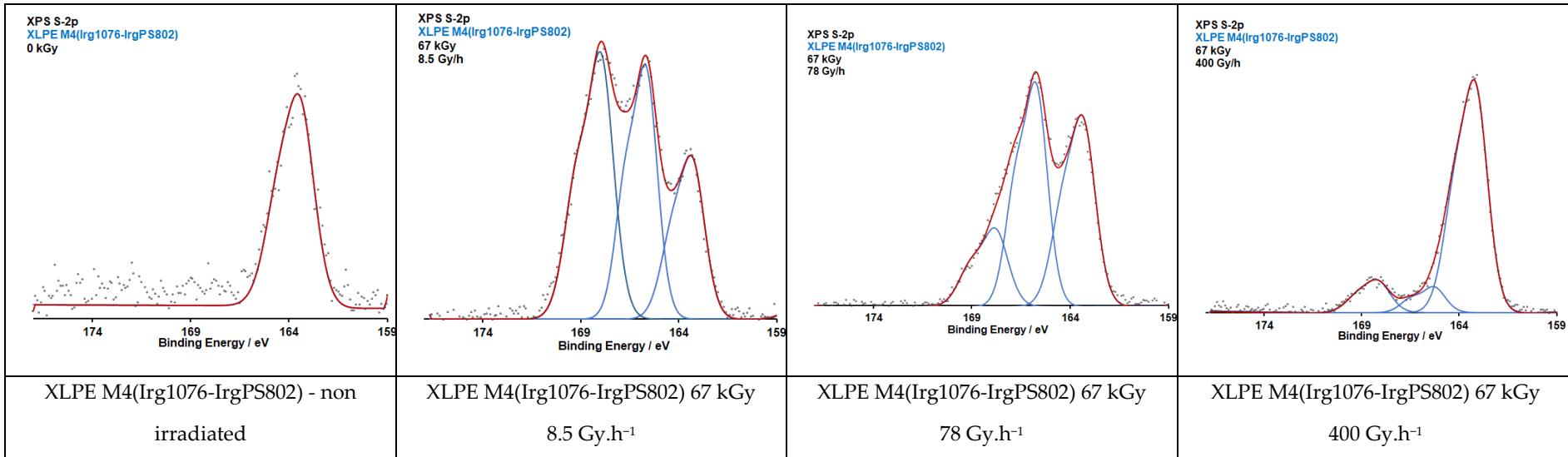


Figure S13. S-2p XPS spectra of XLPE M4(Irg1076-IrgPS802) irradiated at 67 kGy and at three dose rates (i.e., 8.5, 78 and 400 Gy/h).

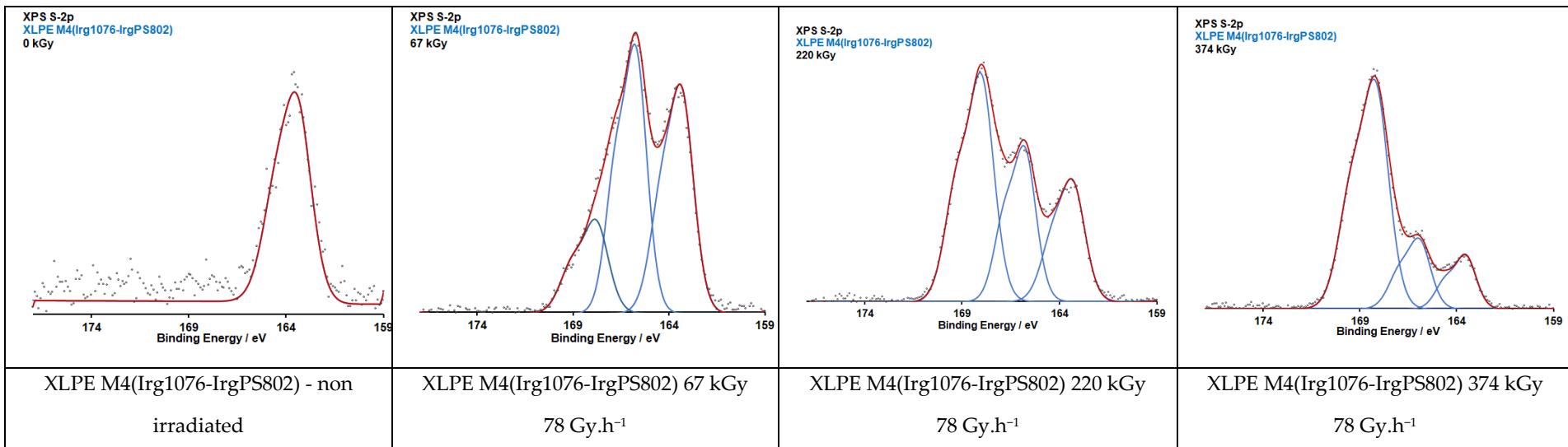


Figure S14. S-2p XPS spectra of XLPE M4(Irg1076-IrgPS802) irradiated at 78 kGy/h and at three dose (0, 67, 220, 374 kGy).

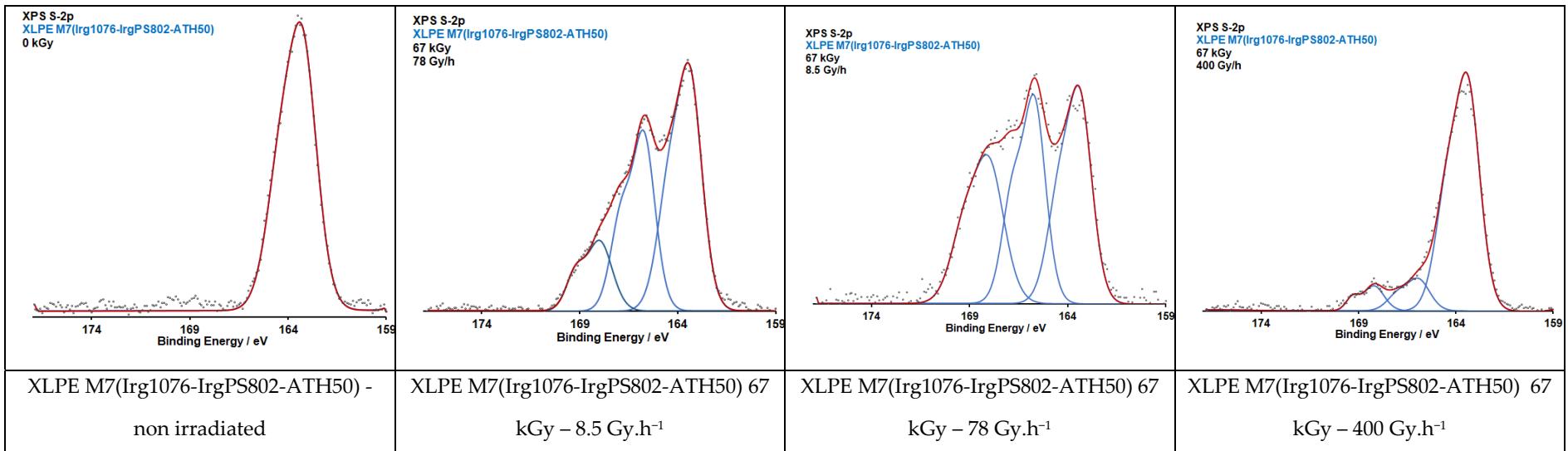


Figure S15. S-2p XPS spectra of XLPE M7(Irg1076-IrgPS802-ATH50) irradiated at 67 kGy and at three dose rates (i.e., 8.5, 78 and 400 Gy/h).

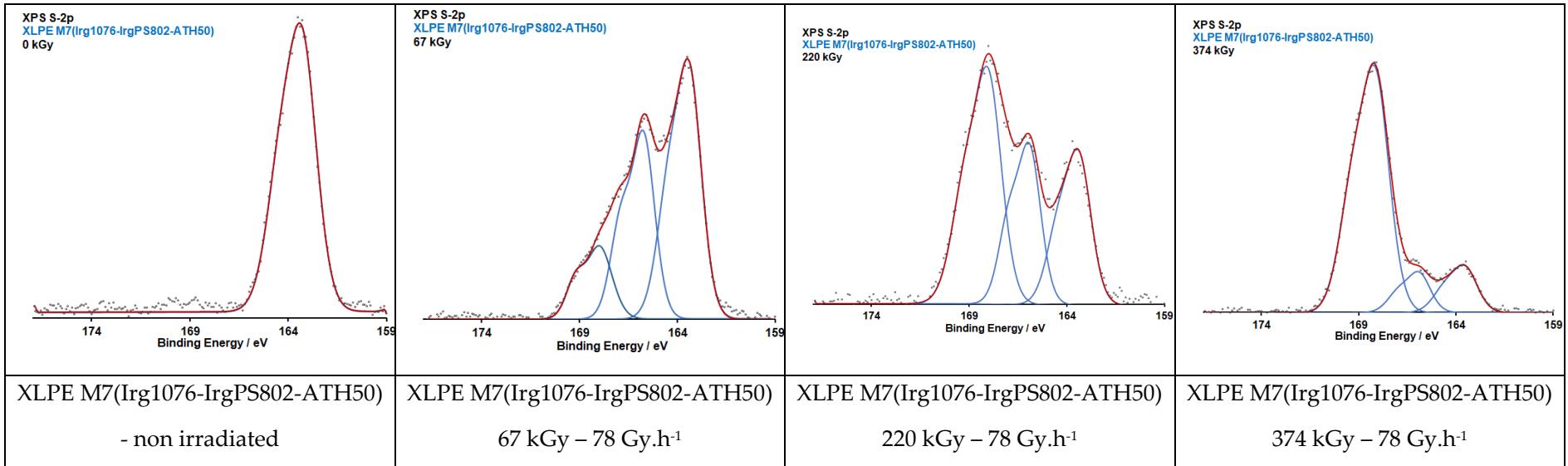


Figure S16. S-2p XPS spectra of XLPE M7(Irg1076-IrgPS802-ATH50) irradiated at 78 kGy/h and at three dose (0, 67, 220, 374 kGy).