XPS Samples

Samples are in consecutive order of VAMAS blocks. Each sample block starts with a survey scan which denotes a change in sample.

1. Fluorine doped tin-oxide glass (FTO, TEC 15). Regions of interest: O 1s, F 1s, N 1s, C 1s, Sn 3d.

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2. NiO thin film on FTO. Regions of interest: O 1s, Ni 2p

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3. Ru(dcb)(bpy)bptRe(CO)3Cl photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Re 4f, Ni 2p.

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4. Ru(dcb)(bpy)bpt photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p.

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5. Ru(bpy)(dcb)(bpt)Pt(dmso)I photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p, Pt 4f.

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6. Ru(dcb)(bpy)(bpt)Pd(dmso)Cl photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p, Pd 3d.

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7. Ru(dcb)(bpy)(terpy)PtI2 photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p, Pt 4f.

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8. Ir(epti)2(bpm)Re(CO)3Cl photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p, Re 4f, Ir 4f.

\*The following samples have been irradiated with light in an electrolyte solution (pH 5 acetate buffer with an applied bias of -0.2 V vs Ag/AgCl).

9. NiO thin film on FTO. Regions of interest: overview, O 1s, Ni 2p

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10. Ru(dcb)(bpy)bptRe(CO)3Cl photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Re 4f, Ni 2p.

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11. Ru(dcb)(bpy)bpt photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p.

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12. Ru(bpy)(dcb)(bpt)Pt(dmso)I photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p, Pt 4f.

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13. Ru(dcb)(bpy)(bpt)Pd(dmso)Cl photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p, Pd 3d.

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14. Ir(epti)2(bpm)Re(CO)3Cl photocatalyst on NiO thin film on FTO. Regions of interest: O 1s, Ru 3d, C 1s, Ni 2p, Re 4f, Ir 4f.