

## Supplementary materials

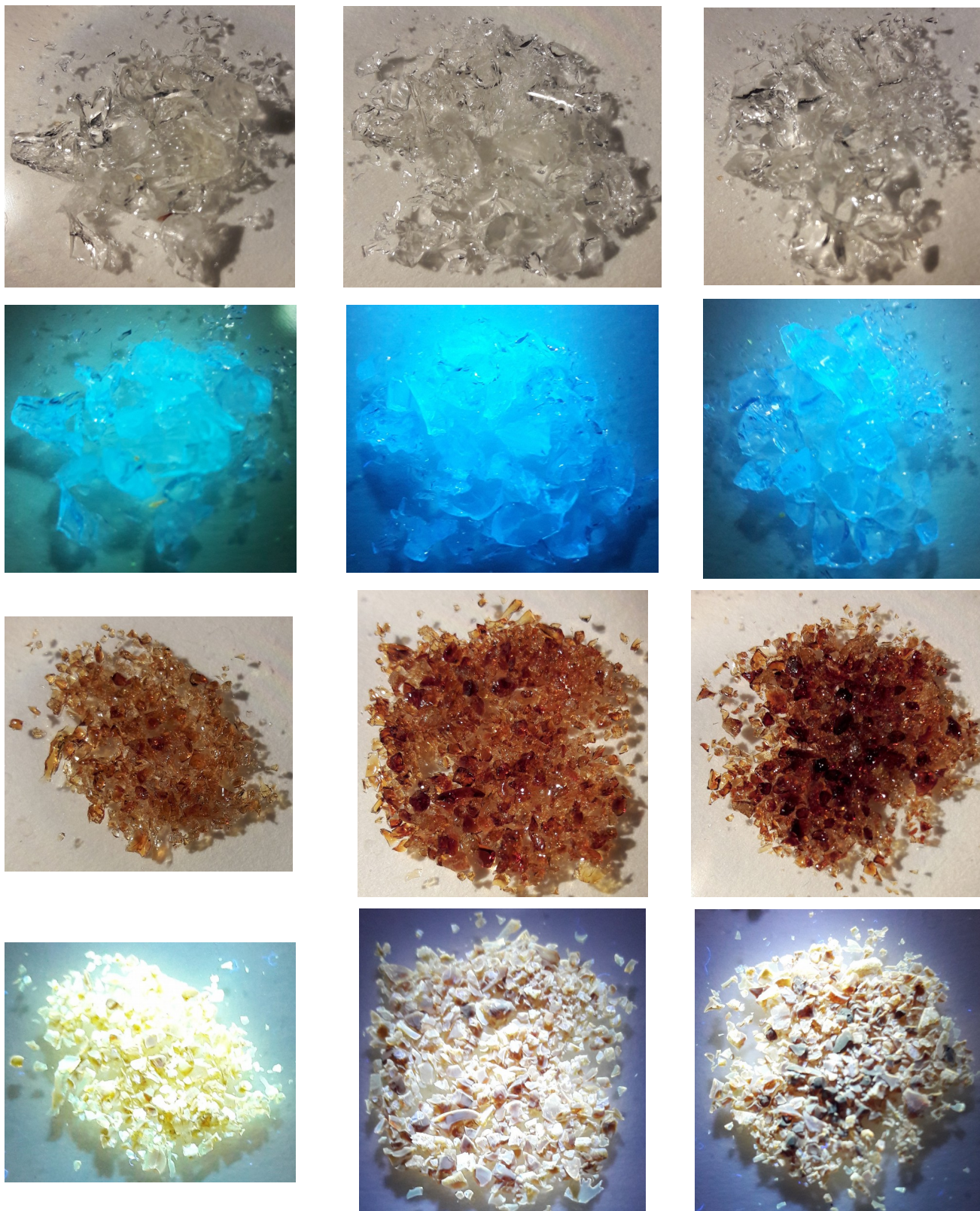


Figure S1: photographs of the sol-gel glasses obtained from silicate-citrate-ureate precursors. From left to right: citric acid-to-urea ratio 1:1, 1:1.5, 1:3. Top down: dried at 105°C and exposed to white flashlight irradiation; dried at 105°C and exposed to UV-blue flashlight irradiation; thermally treated at 270°C and exposed to white flashlight irradiation; thermally treated at 270°C and exposed to UV-blue flashlight irradiation



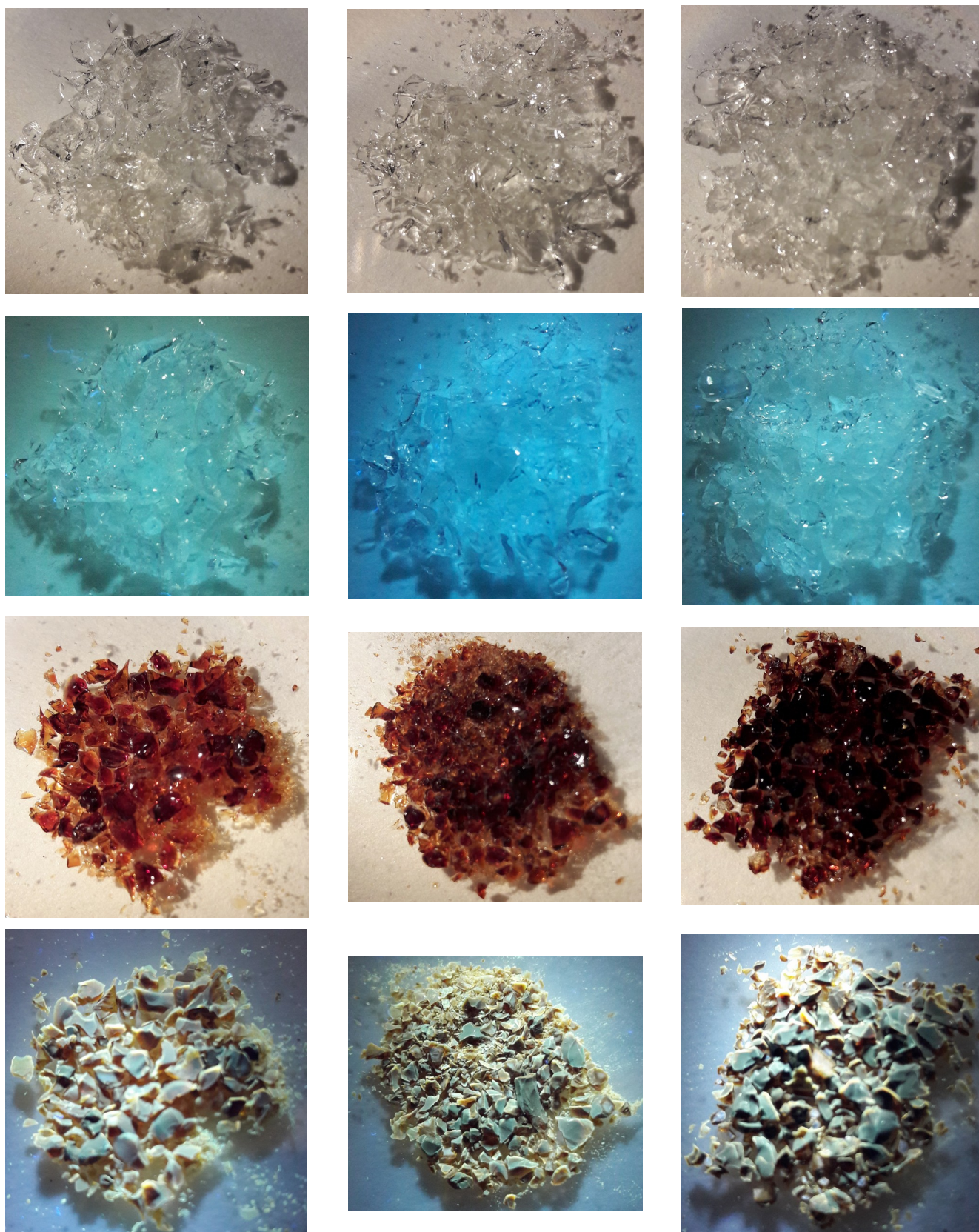


Figure S2: photographs of the sol-gel glasses obtained from silicate-citrate-thiourea precursors. From left to right: citric acid-to-thiourea ratio 1:1, 1:1.5, 1:3. Top down: dried at 105°C and exposed to white flashlight irradiation; dried at 105°C and exposed to UV-blue flashlight irradiation; thermally treated at 270°C and exposed to white flashlight irradiation; thermally treated at 270°C and exposed to UV-blue flashlight irradiation