AIM: to check which materials yield OSL, which do not yield OSL and check the behavior of the OSL measurements versus various stimulation parameters.

***Materials:*** Aluminum oxide (TLD 500, $Al_2O_3$:C) or Berilium oxide (BeO), AND Lithium fluoride (TLD 100, LiF:Mg,Ti)

PROTOCOL (for all materials):

Step 1. Irradiation (1 Gy)

Step 2. TL measurement (350 °C, HR=1 °C/s) after irradiation

Step 3. Irradiation (1 Gy)

Step 4. Continuous Wave OSL (Room temperature, 90% intensity, 100 s)

Step 5. TL measurement (350 °C, HR=1 °C/s) after OSL.

Step 6. Repeat steps 3-5 for various measurement temperatures (40 °C, 50 °C, 60 °C, 70 °C, 80 °C, 90 °C and 100 °C).

Step 7, Repeat steps 3-5 for various stimulation intensities (80%, 70%, 60%, 50%, 40%, 30% and 20 %).

Step 8. Repeat steps 3-5 for another OSL measurement time 200 s.

***Analysis:***

1. Check which materials give OSL signal and which do not.
2. Check the dependence on the stimulation temperature by plotting a figure similar to Fig 2.
3. Check the dependence on the stimulation intensity by plotting a figure similar to Fig 3.
4. 4. Check the impact to the TL glow curve intensity

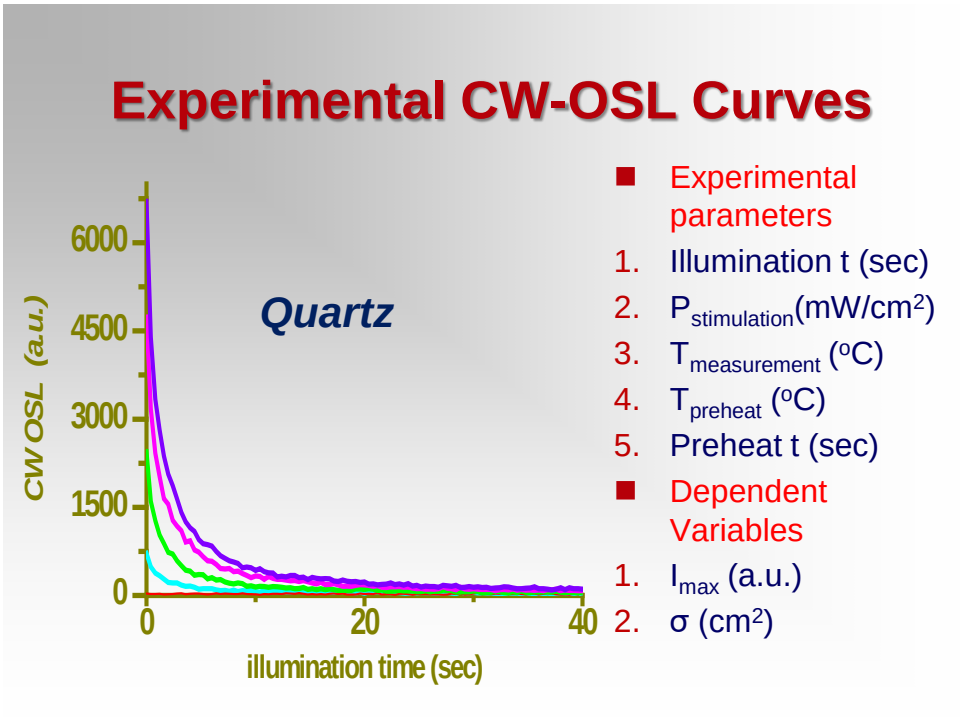


**Fig. 1:** Experimental parameters and dependent variables in CW-OSL measurements.

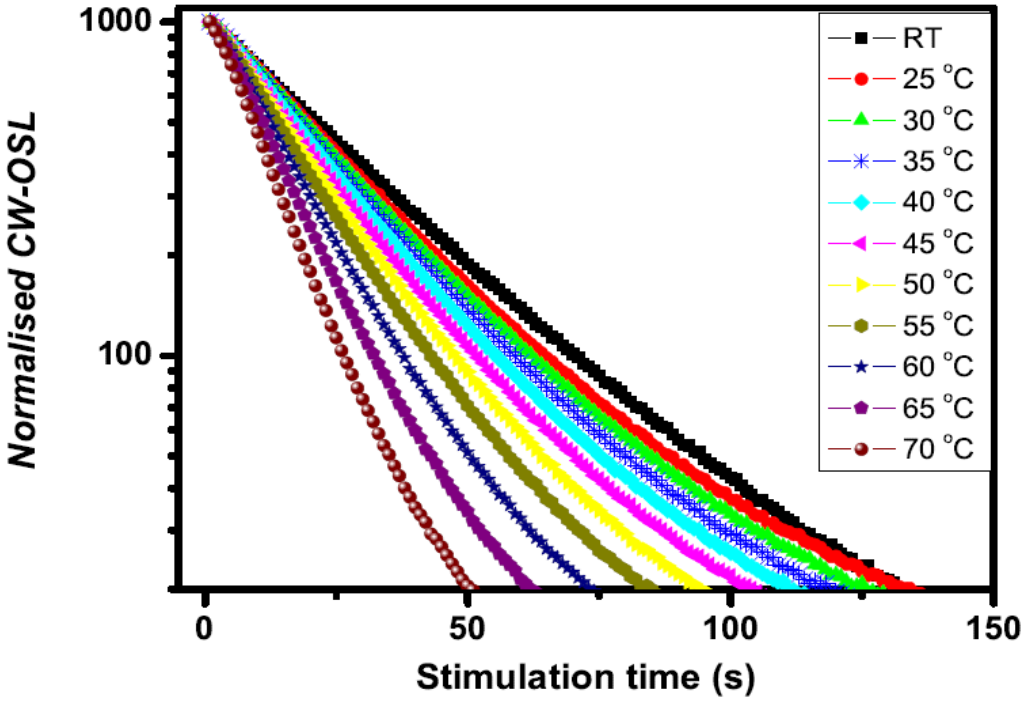


**Fig. 2:** CW-OSL for various stimulation temperatures.

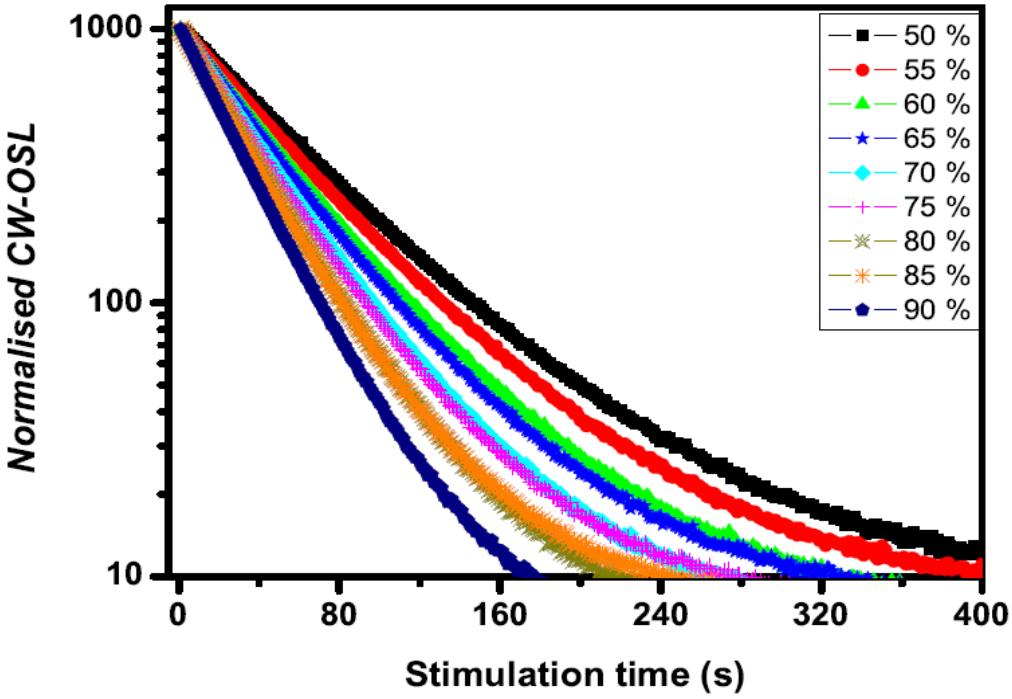


**Fig. 3:** CW-OSL for various stimulation intensities.

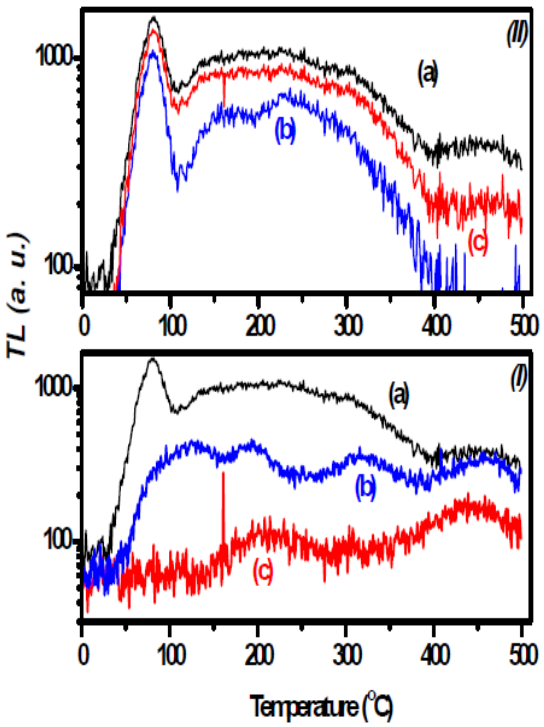


**Fig. 4:** The impact of OSL to the TL glow curves.