

### Supportive information

1. The porosity of chitosan, Schiff base and their complexes was measured using the formula

$$\text{Porosity } (\phi) = \frac{V_b - V_{ma}}{V_b} \times 100$$

where,  $V_b$  is the total volume of the compound,  $V_{ma}$  is the volume of matrix [1].

S.No.	Name of the complex	Porosity ( $\phi$ ) of the prepared Zn (II) complex in percentage
1	2a-OCMCN-Zn (OAc) <sub>2</sub>	4.61
2	2b-OCMCN-Zn (OAc) <sub>2</sub>	3.63

2. The EDAX spectrum reveals the weight percentage of zinc in the carboxymethyl chitosan Schiff base Zn (II) complexes is given below

S.No.	Name of the complex	Weight percentage of zinc in prepared complex
1	2a-OCMCN-Zn (OAc) <sub>2</sub>	8.43
2	2b-OCMCN-Zn (OAc) <sub>2</sub>	7.86

Weight % (2a-OCMCN-Zn (OAc)<sub>2</sub>)

	C	N	O	Si	Cl	Zn
<b>Base(2)_pt2</b>	27.29	11.66	51.87		0.75	8.43

Weight % (2b-OCMCN-Zn (OAc)<sub>2</sub>)

	C	N	O	Al	Si	S	Cl	Ca	Zn
<b>Base(1)_pt1</b>	27.16	12.51	50.62	0.67	0.22	0.20	0.68	0.08	7.86

3. The IC<sub>50</sub> value of the compounds was measured and it has been represented in supportive information studies [2].

S.No.	Name of the compounds	IC <sub>50</sub> value (μM)
1	2a-OCMCN	140.43
2	2b-OCMCN	324.88
3	2a-OCMCN-Zn (OAc) <sub>2</sub>	37.91
4	2b-OCMCN-Zn (OAc) <sub>2</sub>	259.3
5	Vitamin C	32.41

## References

1. Egli, D., Baumann, R., K ung, S., Berger, A., Baron, L., & Herwegh, M. (2018). Structural characteristics, bulk porosity and evolution of an exhumed long-lived hydrothermal system. *Tectonophysics*. doi:10.1016/j.tecto.2018.10.008
2. Kharazmi-Khorassani, J., Asoodeh, A., & Tanzadehpanah, H. (2019). Antioxidant and angiotensin-converting enzyme (ACE) inhibitory activity of thymosin alpha-1 (Thα1) peptide. *Bioorganic Chemistry*. doi:10.1016/j.bioorg.2019.04.003.