Supplementary Material (ESI) for New Journal of Chemistry

Doubly-linked 1D coordination polymers derived from 2 : 2 metallamacrocyclic Ni(II) complexes with bipodal acylthiourea and *exo*-bidentate *N*-donor bridging ligands: toward potentially selective chemical sensors?

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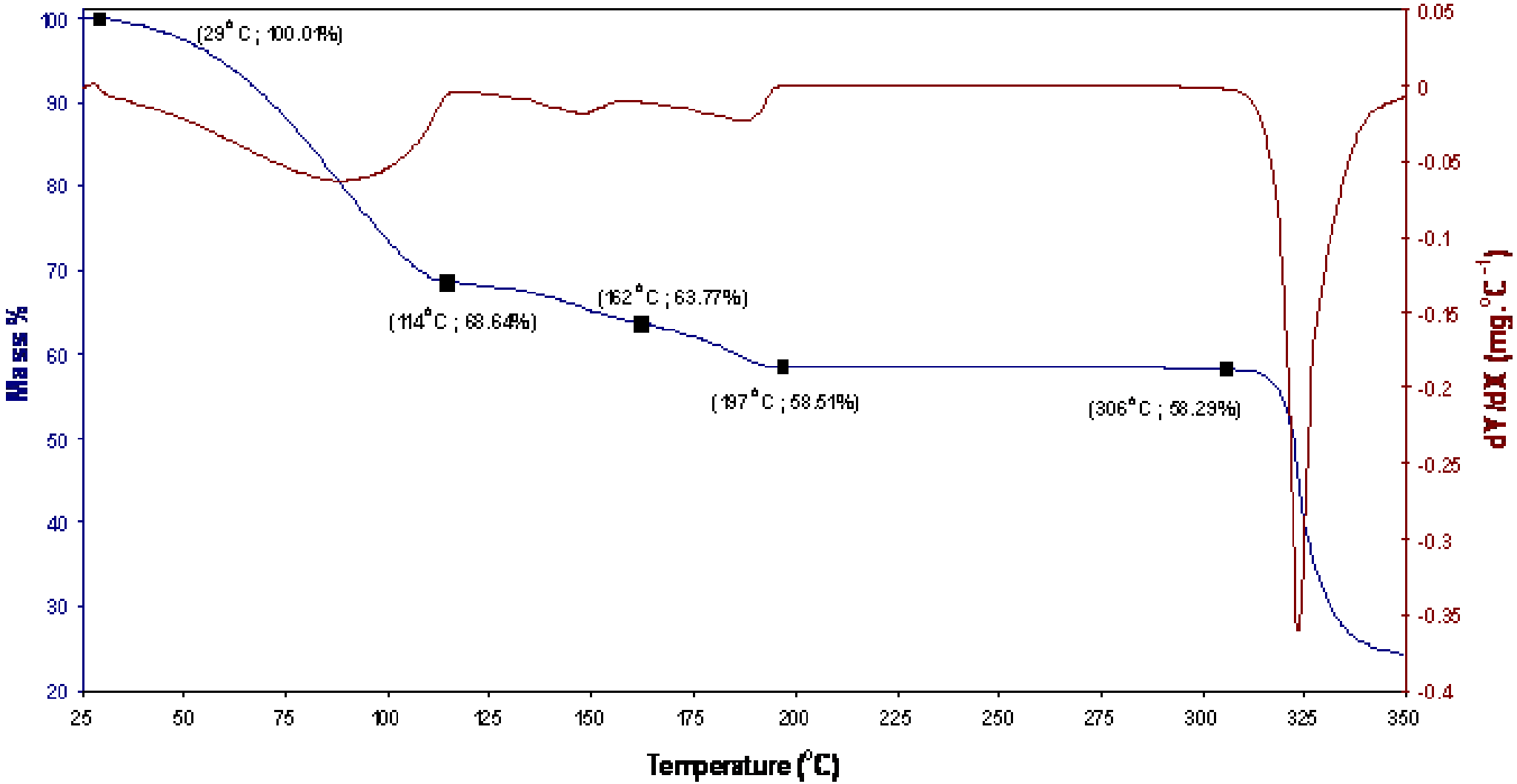
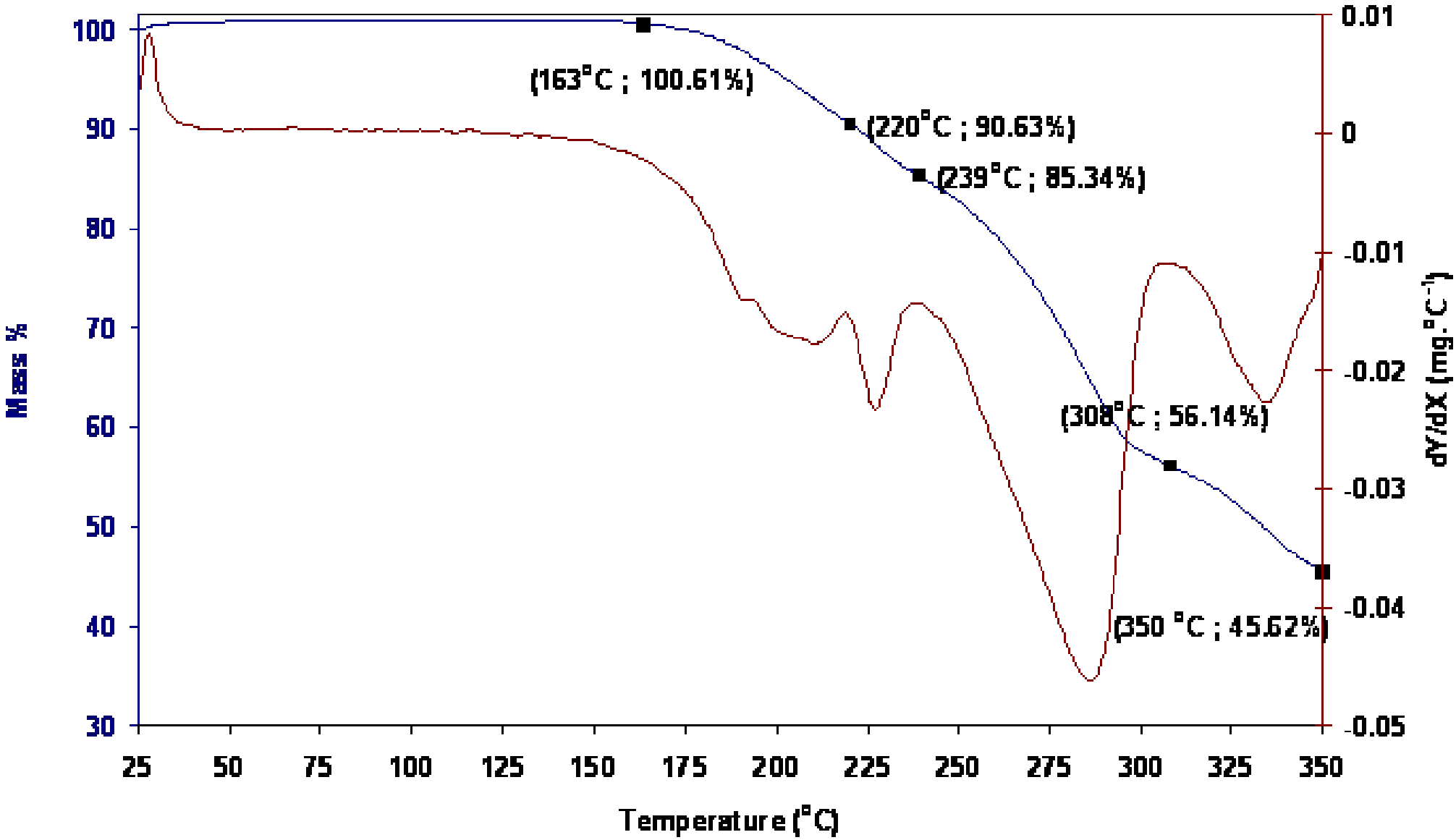
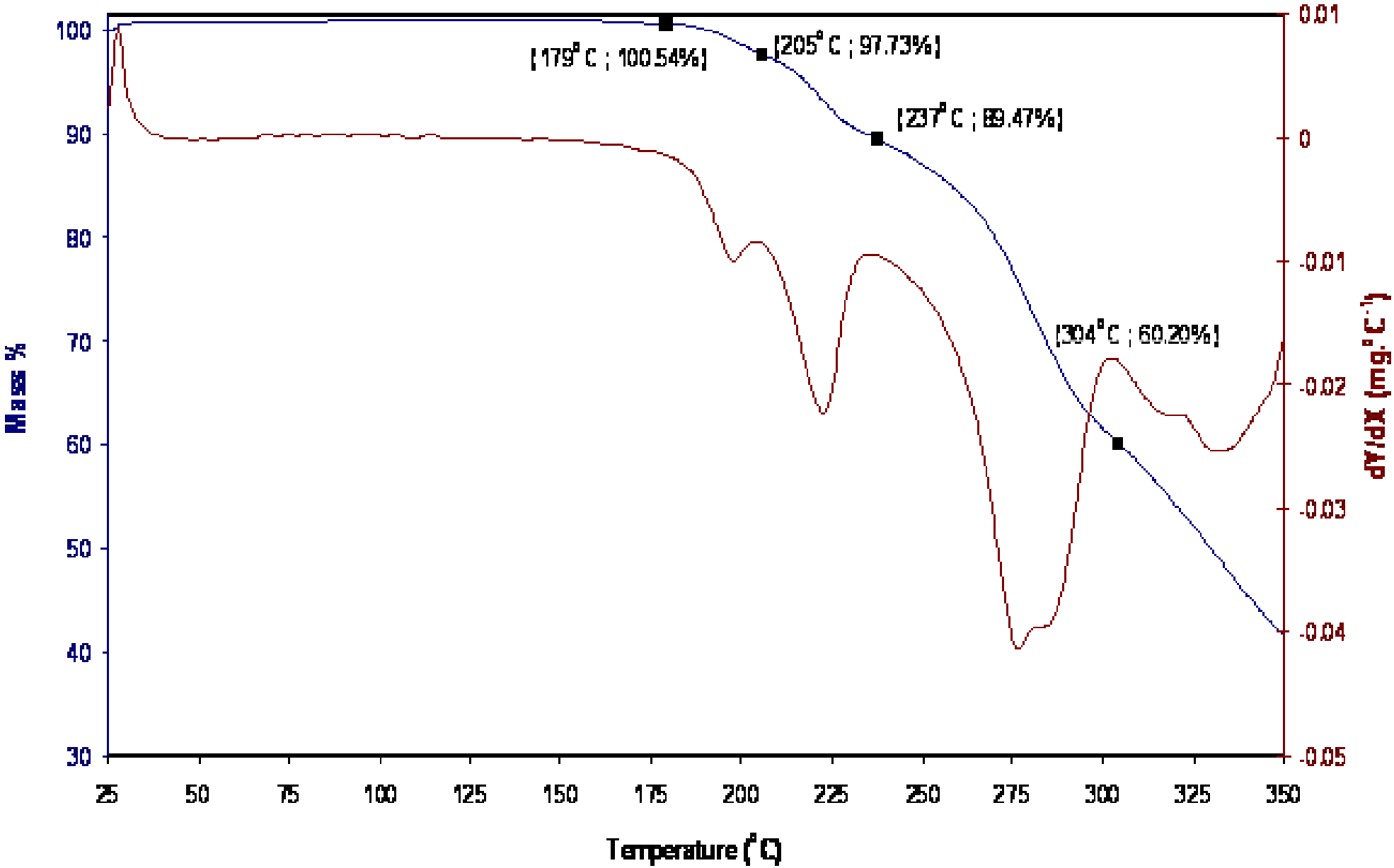


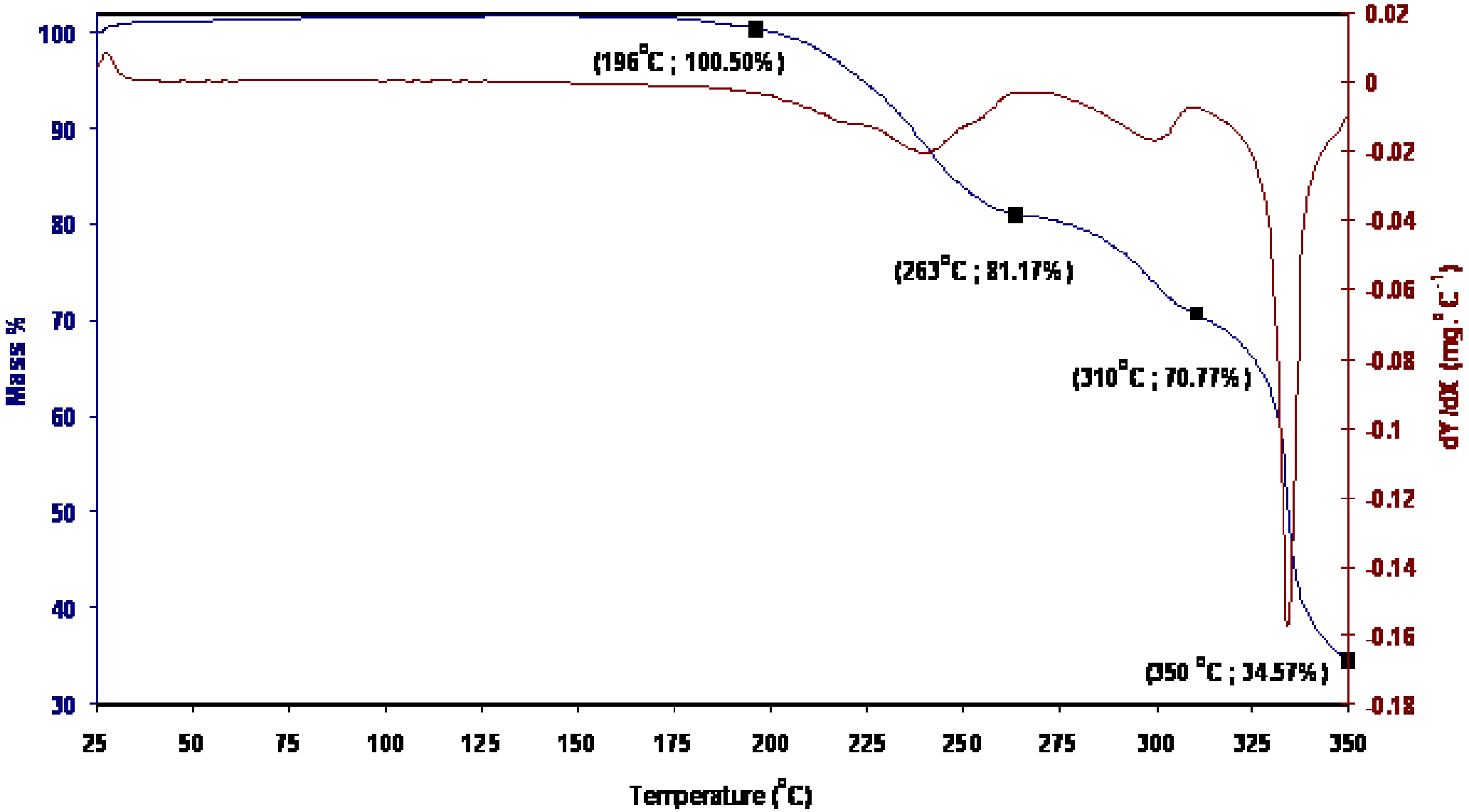
TGA trace for $\{cis\text{-}[Ni(I\text{-}Et\text{-}S,O)(pyra\text{-}N,N')]_2\}_n$ (**2**) with 1st derivative curve indicated



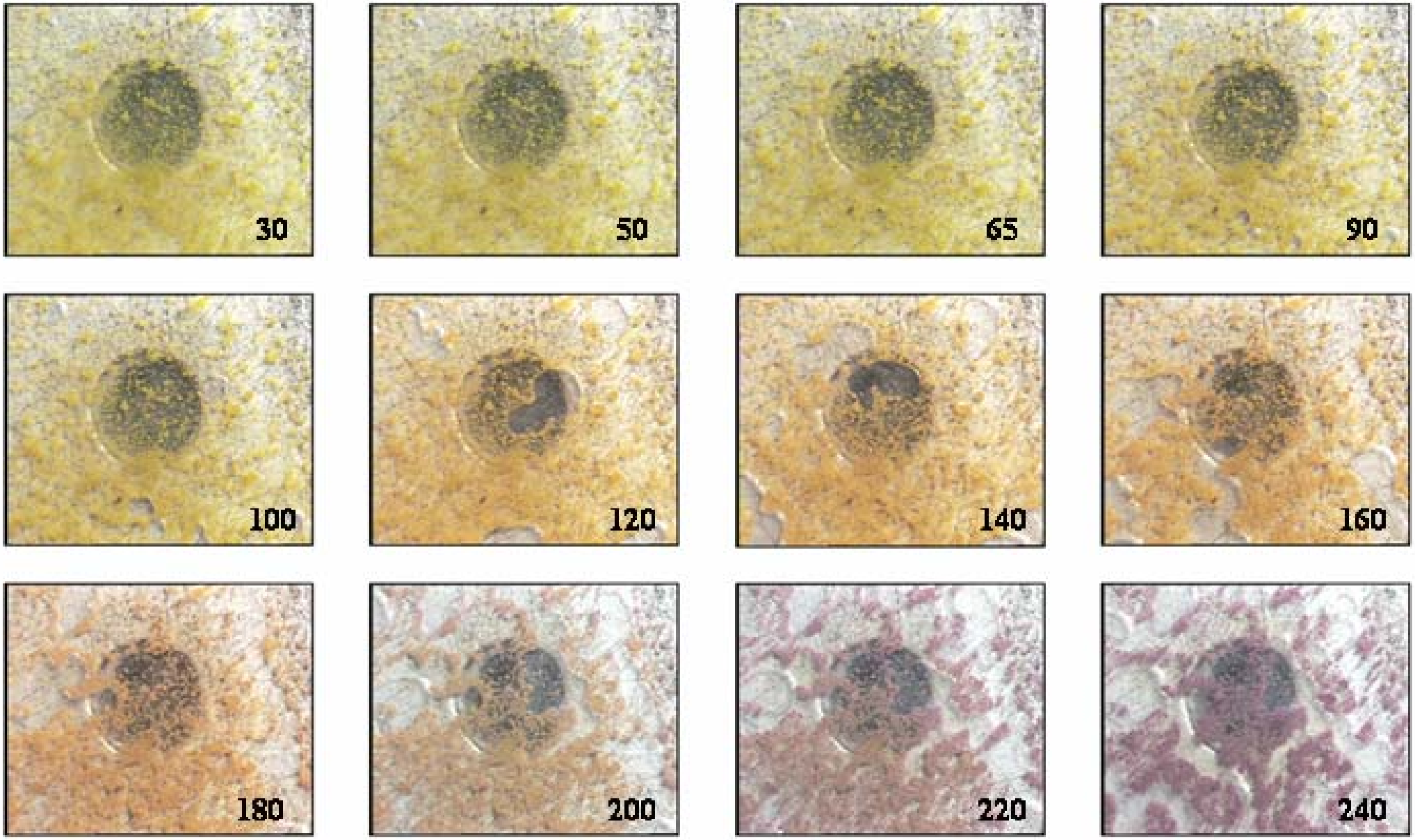
TGA trace for {*cis*-[Ni(I-Et-*S,O*)(bipy-*N,N'*)]$_2$}$_n$ (**3**) with 1st derivative curve indicated.



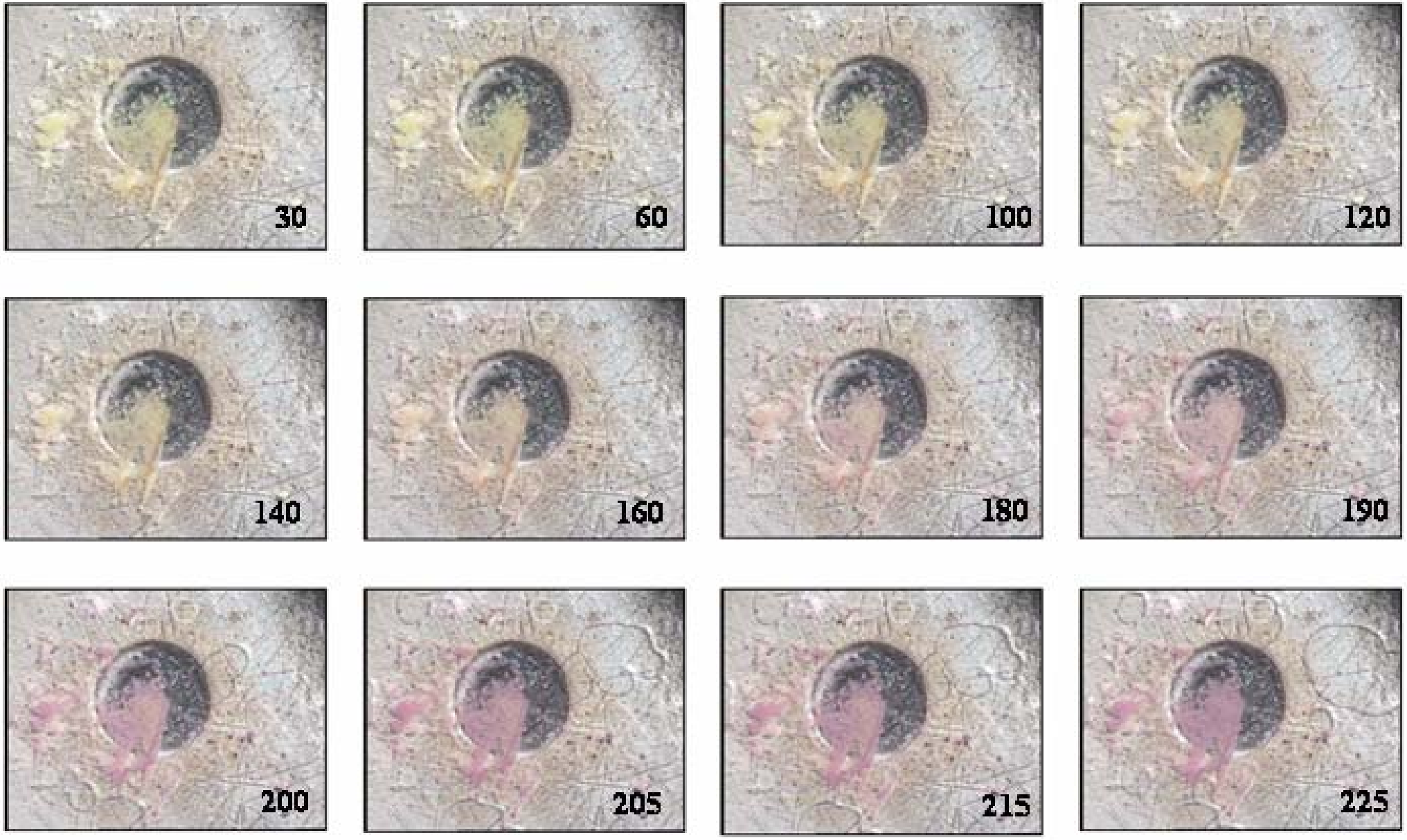
TGA trace for {*cis*-[Ni(I-Et-*S,O*)(BPE-*N,N'*)]$_2$}$_n$ (**4**) with 1st derivative curve indicated.



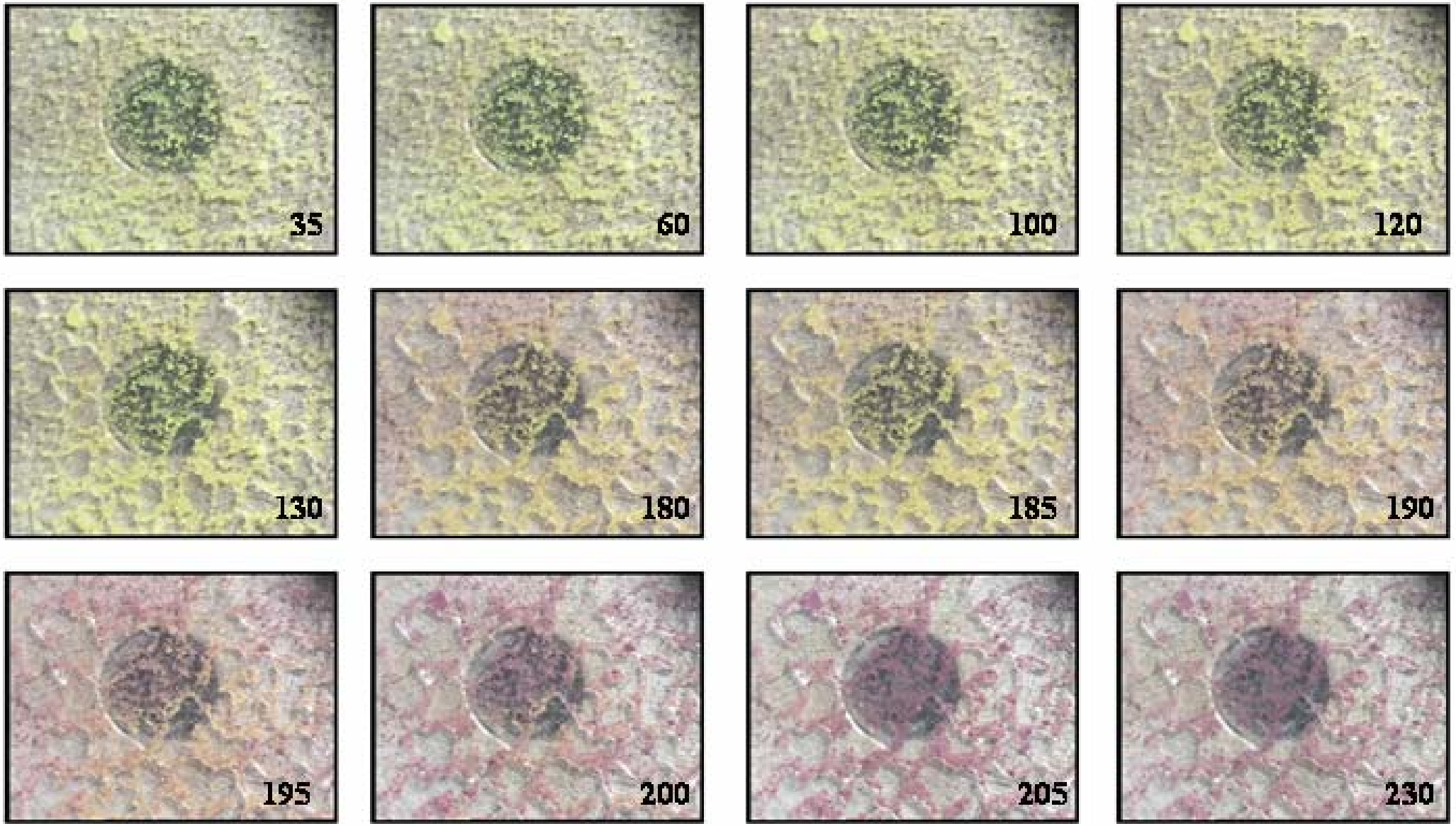
TGA trace for {*cis*-[Ni(I-Et-*S*,*O*)(DPE-*M*,*M*')]$_2$}$_n$ (**5**) with 1st derivative curve indicated.



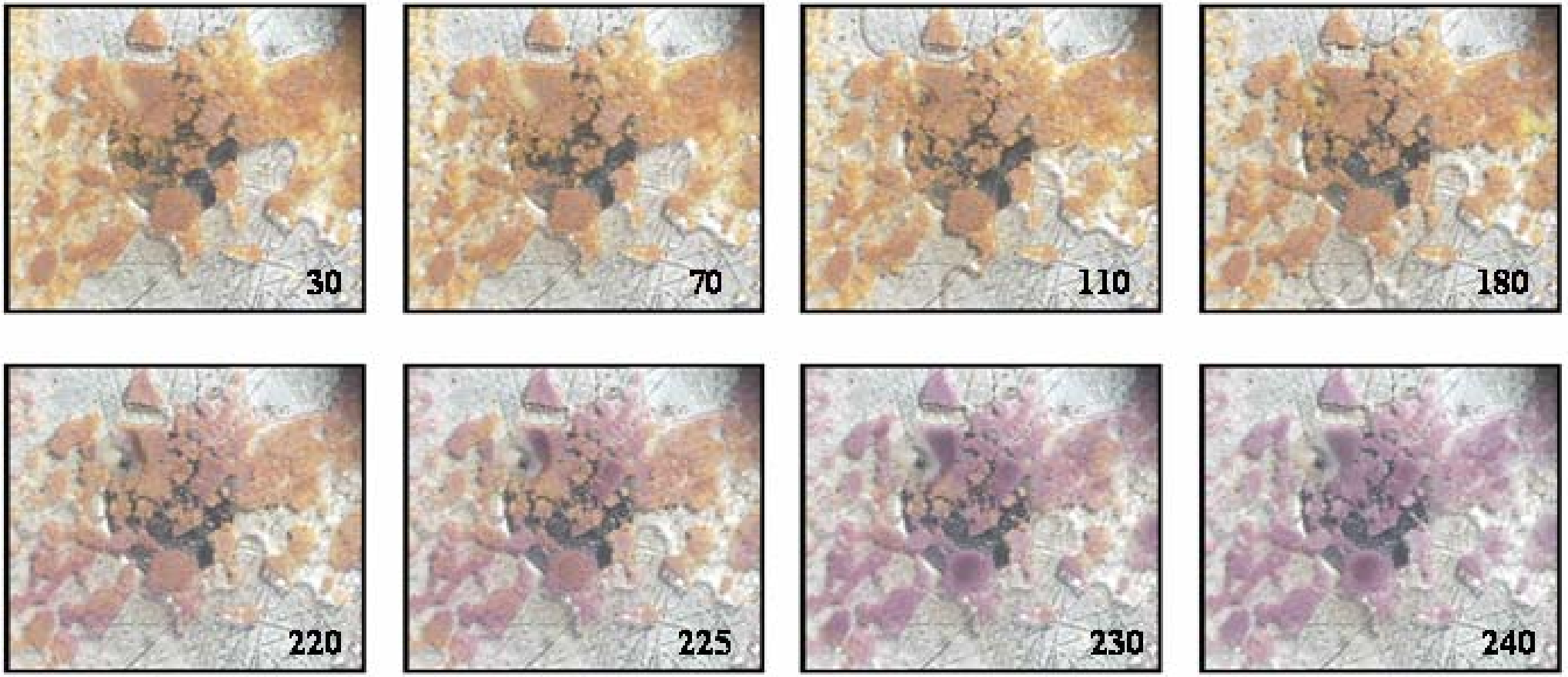
HSM photographs of **2** heated under silicone oil. Temperatures reported in degrees Celsius



HSM photographs of **3** heated under silicone oil. Temperatures reported in degrees Celsius.

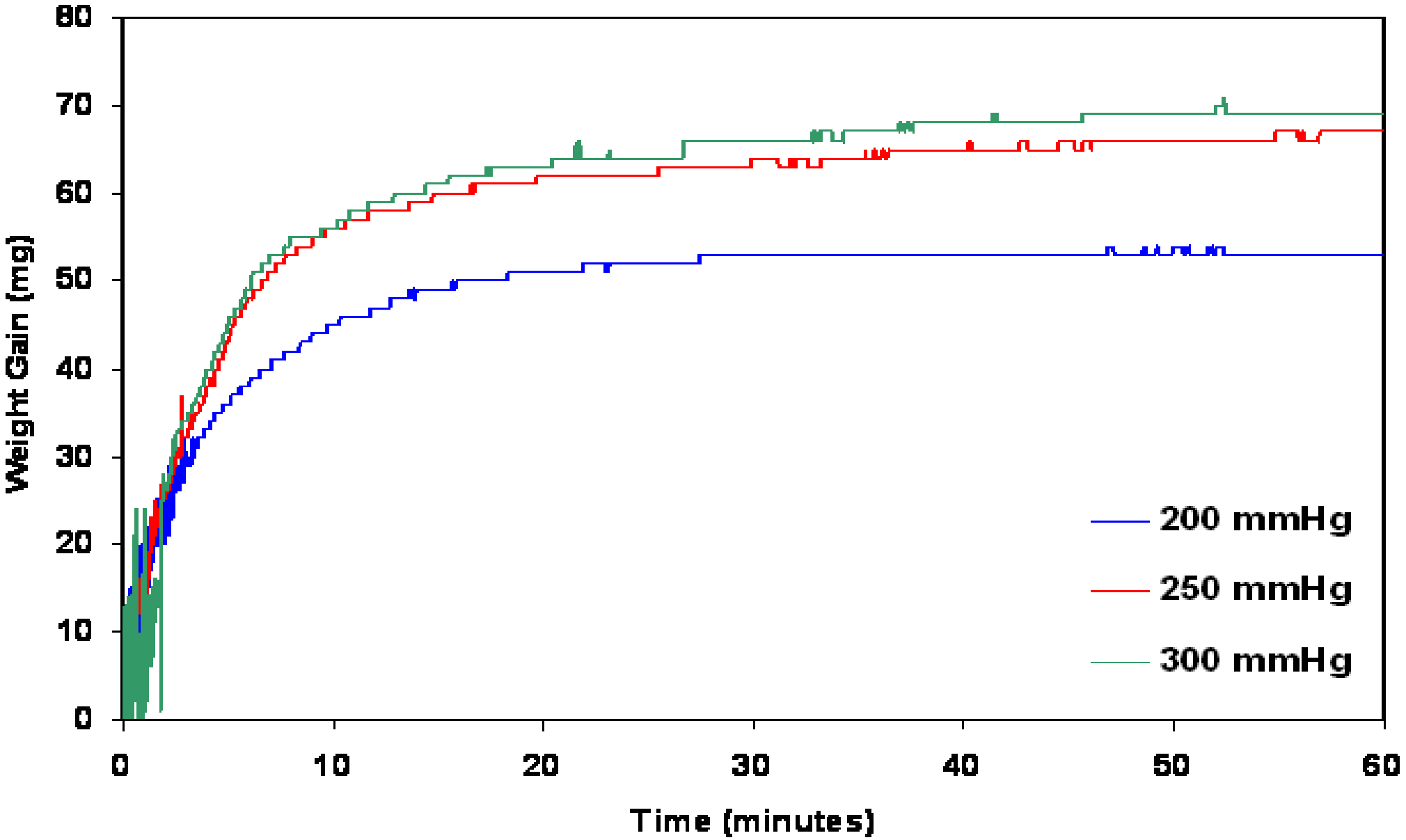


HSM photographs of **4** heated under silicone oil. Temperatures reported in degrees Celsius



HSM photographs of **5** heated under silicone oil. Temperatures reported in degrees Celsius.

Digital photographs of a sample of {*cis*-[Ni(I-Et-*S,O*)(DPE-*N,N'*)]$_2$}$_n$ (**5**): (i) as a light orange powder prior initially, (ii) undergoing a colour change immediately upon enclosure in a CH_2Cl_2 saturated chamber, (iii) substantially further in the transition in colour after ca. 5 seconds of exposure and (iv) in the final chromatic state as a pale green powder after 1 minute of exposure.



Results of gravimetric study of isobaric sorption of CH_2Cl_2 by $\{cis\text{-}[Ni(I\text{-}Et\text{-}S,O)(DPE\text{-}N,N')]_2\}_n$ (**5**) performed on a levitating balance