A WC star explosion: SN 2006jc

Abstract & Conclusion

(1) First direct detection of the dust formation in Type Ib SN: SN2006jc is a first SN indicating the dust formation at early epoch (~60 days) by the optical and NIR observations contributed by SUBARU and the AKARI observation at ~220 days provides the evidence of the dust formation in SN2006jc.

(2) Early dust formation: the rapid cooling of the SN ejecta due to the high-energy and less-massive explosion realize the dust formation at the early epoch.

(3) A WC star explosion: we propose the consistent model for SN2006jc throughout the stellar evolution, the bolometric and X-ray light curves, and the dust formation.

Reference

Tominaga et al. 07 (arXiv:0711.4782)
Sakon et al. 07 (arXiv:0711.4801)
Nozawa et al. 08 (arXiv:0801.2015)
Kawabata et al. in prep.
Anupama et al. in prep.