Table 1: Model parameters and nucleosynthetic yields for selected species at the start of our radiative-transfer calculations (0.5 d past explosion). The $^{56}$Ni mass is given at $t \approx 0$.

| Model | $M_{\rm tot}$ [M$_\odot$] | $M_{^{56}\rm Ni}/M_{\rm tot}$ | $\rho_{\rm tr}$ [g cm$^{-3}$] | $E_{\rm kin}$ [B] | $v(^{56}\rm Ni)$ [km s$^{-1}$] ($t \approx 0$) | $^{56}$Ni [M$_\odot$] ($t = 0.5$ d) | Ni [M$_\odot$] | Co [M$_\odot$] | Fe [M$_\odot$] | Ti [M$_\odot$] | Ca [M$_\odot$] | Si [M$_\odot$] | Mg [M$_\odot$] | O [M$_\odot$] | C [M$_\odot$] | $t_B$ [d] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DDC25 | 1.41 | 0.08 | 8.0(6) | 1.185 | 8.49(3) | 0.119 | 0.142 | 9.69(-3) | 9.80(-2) | 1.13(-4) | 2.41(-2) | 0.485 | 3.72(-2) | 0.283 | 2.16(-2) | 19.82 |
| DDC22 | 1.41 | 0.15 | 1.1(7) | 1.345 | 9.80(3) | 0.211 | 0.231 | 1.59(-2) | 0.107 | 1.17(-4) | 4.15(-2) | 0.483 | 2.57(-2) | 0.209 | 8.26(-3) | 17.49 |
| DDC20 | 1.41 | 0.21 | 1.3(7) | 1.442 | 1.03(4) | 0.300 | 0.315 | 2.15(-2) | 0.110 | 1.12(-4) | 4.72(-2) | 0.426 | 2.10(-2) | 0.170 | 5.12(-3) | 17.21 |
| DDC17 | 1.41 | 0.29 | 1.6(7) | 1.459 | 1.08(4) | 0.412 | 0.421 | 2.84(-2) | 0.112 | 1.14(-4) | 4.73(-2) | 0.353 | 1.79(-2) | 0.152 | 3.80(-3) | 17.24 |
| DDC15 | 1.41 | 0.36 | 1.8(7) | 1.465 | 1.12(4) | 0.511 | 0.516 | 3.44(-2) | 0.114 | 1.11(-4) | 4.53(-2) | 0.306 | 1.14(-2) | 0.105 | 2.73(-3) | 17.09 |
| DDC10 | 1.41 | 0.44 | 2.3(7) | 1.520 | 1.16(4) | 0.623 | 0.622 | 4.11(-2) | 0.115 | 1.10(-4) | 4.10(-2) | 0.257 | 9.95(-3) | 0.101 | 2.16(-3) | 17.69 |
| DDC6 | 1.41 | 0.51 | 2.7(7) | 1.530 | 1.20(4) | 0.722 | 0.718 | 4.72(-2) | 0.116 | 1.07(-4) | 3.52(-2) | 0.216 | 7.28(-3) | 8.35(-2) | 1.81(-3) | 18.03 |
| DDC0 | 1.41 | 0.62 | 3.5(7) | 1.573 | 1.29(4) | 0.869 | 0.872 | 5.58(-2) | 0.102 | 1.17(-4) | 2.49(-2) | 0.160 | 3.58(-3) | 5.18(-2) | 1.20(-3) | 17.67 |
| PDDEL12 | 1.41 | 0.18 | 1.0(7) | 1.262 | 1.11(4) | 0.253 | 0.268 | 1.88(-2) | 0.101 | 2.37(-5) | 4.56(-2) | 0.489 | 4.21(-3) | 0.103 | 2.11(-2) | 17.24 |
| PDDEL11 | 1.41 | 0.21 | 1.1(7) | 1.236 | 1.14(4) | 0.299 | 0.312 | 2.17(-2) | 0.102 | 2.52(-5) | 4.91(-2) | 0.441 | 2.82(-3) | 7.98(-2) | 2.00(-2) | 16.49 |
| PDDEL9 | 1.41 | 0.29 | 1.3(7) | 1.342 | 1.18(4) | 0.408 | 0.416 | 2.85(-2) | 0.105 | 3.10(-5) | 5.50(-2) | 0.386 | 2.44(-3) | 7.24(-2) | 1.94(-2) | 16.08 |
| PDDEL4 | 1.41 | 0.38 | 1.5(7) | 1.344 | 1.22(4) | 0.529 | 0.530 | 3.58(-2) | 0.108 | 3.43(-5) | 5.40(-2) | 0.307 | 1.64(-3) | 4.70(-2) | 1.85(-2) | 16.60 |
| PDDEL7 | 1.41 | 0.43 | 1.6(7) | 1.336 | 1.25(4) | 0.604 | 0.602 | 4.02(-2) | 0.107 | 3.07(-5) | 5.03(-2) | 0.258 | 1.52(-3) | 4.34(-2) | 1.79(-2) | 17.65 |
| PDDEL3 | 1.41 | 0.49 | 1.8(7) | 1.353 | 1.26(4) | 0.685 | 0.680 | 4.51(-2) | 0.107 | 3.01(-5) | 4.64(-2) | 0.218 | 1.46(-3) | 4.04(-2) | 1.77(-2) | 18.21 |
| PDDEL1 | 1.41 | 0.54 | 2.0(7) | 1.398 | 1.28(4) | 0.758 | 0.751 | 4.95(-2) | 0.107 | 2.99(-5) | 4.23(-2) | 0.190 | 1.48(-3) | 3.99(-2) | 1.73(-2) | 18.18 |
| SCH1p5 | 0.88 | 0.09 | ··· | 0.746 | 1.02(4) | 7.79(-2) | 7.37(-2) | 7.51(-3) | 1.99(-2) | 1.37(-5) | 2.66(-2) | 0.282 | 2.38(-2) | 0.194 | 9.36(-3) | 13.36 |
| SCH2p0 | 0.90 | 0.13 | ··· | 0.803 | 1.05(4) | 0.116 | 0.109 | 1.09(-2) | 2.21(-2) | 1.58(-5) | 3.01(-2) | 0.282 | 2.01(-2) | 0.177 | 7.42(-3) | 14.22 |
| SCH2p5 | 0.93 | 0.18 | ··· | 0.859 | 1.08(4) | 0.168 | 0.158 | 1.55(-2) | 2.43(-2) | 1.82(-5) | 3.25(-2) | 0.274 | 1.64(-2) | 0.159 | 6.25(-3) | 14.88 |
| SCH3p0 | 0.95 | 0.24 | ··· | 0.913 | 1.11(4) | 0.229 | 0.214 | 2.08(-2) | 2.65(-2) | 2.03(-5) | 3.41(-2) | 0.262 | 1.29(-2) | 0.142 | 5.38(-3) | 15.23 |
| SCH3p5 | 0.97 | 0.31 | ··· | 0.967 | 1.14(4) | 0.301 | 0.280 | 2.70(-2) | 2.85(-2) | 2.17(-5) | 3.37(-2) | 0.245 | 9.89(-3) | 0.125 | 4.75(-3) | 16.54 |
| SCH4p0 | 1.00 | 0.38 | ··· | 1.026 | 1.16(4) | 0.381 | 0.354 | 3.40(-2) | 3.00(-2) | 2.21(-5) | 3.18(-2) | 0.225 | 7.14(-3) | 0.109 | 4.22(-3) | 17.30 |
| SCH4p5 | 1.02 | 0.46 | ··· | 1.089 | 1.20(4) | 0.467 | 0.439 | 4.17(-2) | 2.71(-2) | 2.30(-5) | 2.91(-2) | 0.203 | 4.95(-3) | 9.10(-2) | 3.84(-3) | 17.50 |
| SCH5p0 | 1.05 | 0.53 | ··· | 1.159 | 1.25(4) | 0.553 | 0.523 | 4.94(-2) | 2.45(-2) | 2.70(-5) | 2.67(-2) | 0.179 | 3.47(-3) | 7.20(-2) | 3.64(-3) | 17.35 |
| SCH5p5 | 1.07 | 0.59 | ··· | 1.238 | 1.32(4) | 0.638 | 0.605 | 5.69(-2) | 2.26(-2) | 2.72(-5) | 2.40(-2) | 0.158 | 2.48(-3) | 5.29(-2) | 3.35(-3) | 17.03 |
| SCH6p0 | 1.10 | 0.65 | ··· | 1.308 | 1.38(4) | 0.715 | 0.681 | 6.38(-2) | 2.08(-2) | 2.57(-5) | 2.14(-2) | 0.136 | 1.82(-3) | 4.06(-2) | 3.22(-3) | 16.68 |
| SCH6p5 | 1.12 | 0.69 | ··· | 1.371 | 1.44(4) | 0.781 | 0.750 | 7.00(-2) | 1.87(-2) | 2.37(-5) | 1.91(-2) | 0.117 | 1.28(-3) | 3.14(-2) | 2.99(-3) | 16.22 |
| SCH7p0 | 1.15 | 0.74 | ··· | 1.428 | 1.50(4) | 0.847 | 0.817 | 7.61(-2) | 1.67(-2) | 2.16(-5) | 1.66(-2) | 9.77(-2) | 9.94(-4) | 2.43(-2) | 2.83(-3) | 15.82 |

**Notes:** Numbers in parenthesis correspond to powers of ten. The ratio of the deflagration velocity to the local sound speed ahead of the flame is $\alpha = 0.03$ for all models; $\rho_{\rm tr}$ is the transition density at which the deflagration is artificially turned into a detonation; $E_{\rm kin}$ is the asymptotic kinetic energy (units: $1\rm B \equiv 1 Bethe = 10^{51}$ erg). $v(^{56}\rm Ni)$ is the velocity of the ejecta shell that bounds 99% of the total $^{56}$Ni mass.