

## Supplemental Material

### Deuteron Evaporation from $N = Z$ Compound Nuclei

The Supplemental Material provides level schemes based on observed  $\gamma$  transitions from residual nuclei created in fusion-evaporation reactions involving  $pn$  and

$d$  evaporation. Presented level schemes are for  $^{61}\text{Zn}$  (Fig. 1),  $^{60}\text{Cu}$  (Fig. 2), and  $^{58}\text{Cu}$  (Fig. 3) residues from the  $^{64}\text{Ge}^*$  compound nucleus.

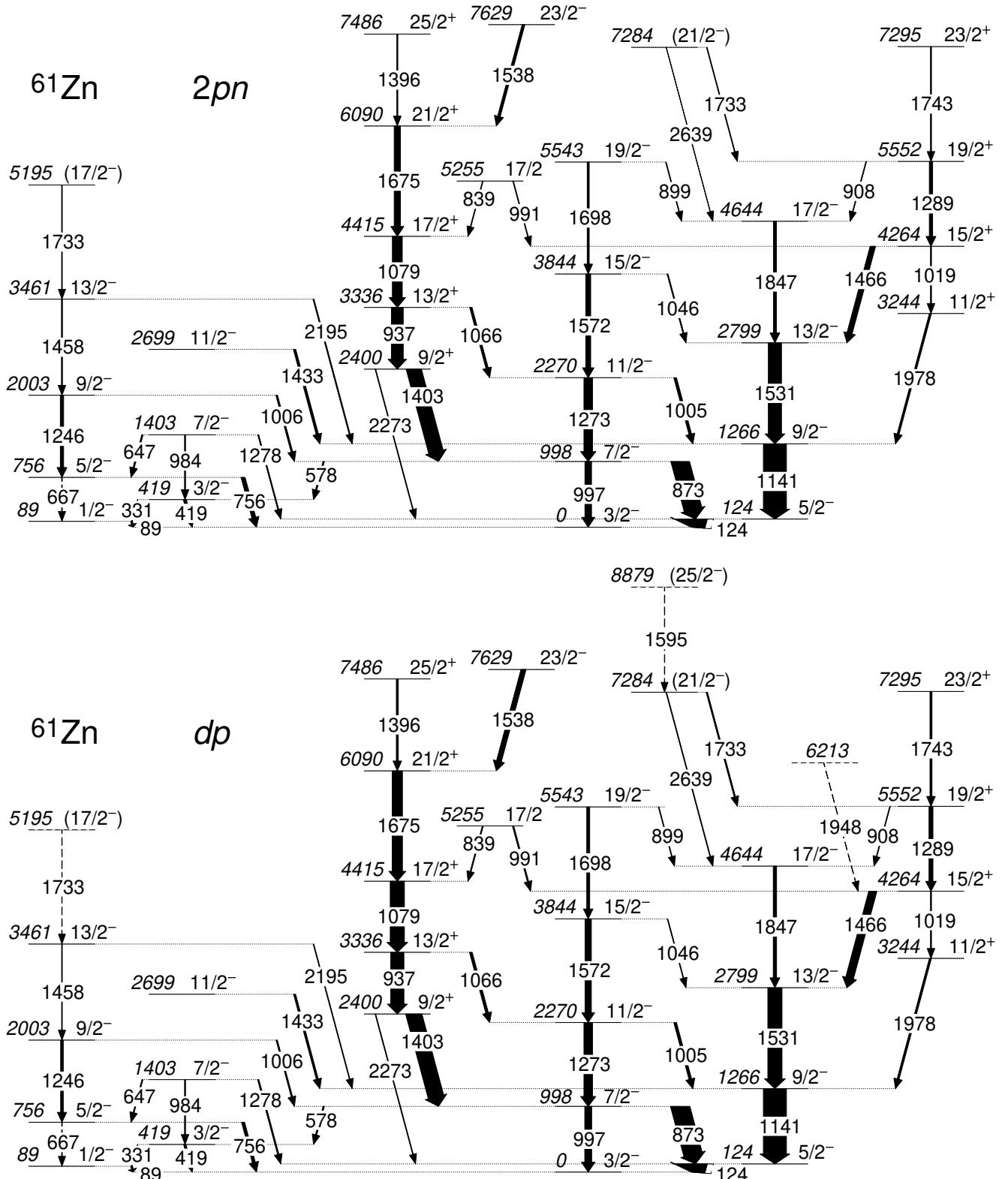


FIG. 1. Decay schemes of  $^{61}\text{Zn}$  [38,39] observed as (top) 2pn- and (bottom) dp-evaporation channels from the compound nucleus  $^{64}\text{Ge}^*$ . Energy labels of excited states and  $\gamma$ -ray transitions are in keV. The widths of the arrows correspond to the relative intensities of the transitions. Tentative levels and transitions are dashed.

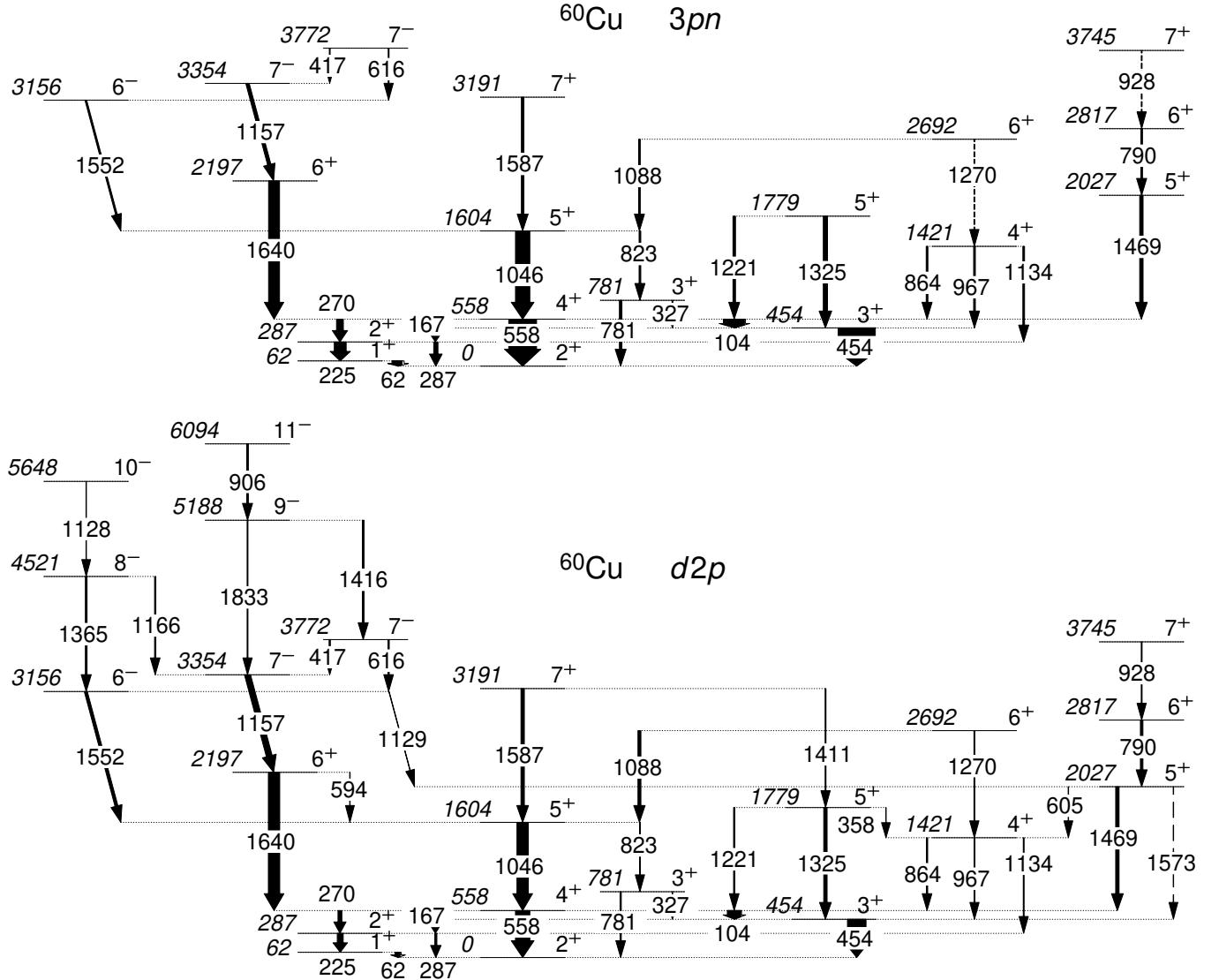


FIG. 2. Decay schemes of  $^{60}\text{Cu}$  [40-42] observed as (top)  $3pn$ - and (bottom)  $d2p$ -evaporation channels from the compound nucleus  $^{64}\text{Ge}^*$ . Energy labels of excited states and  $\gamma$ -ray transitions are in keV. The widths of the arrows correspond to the relative intensities of the transitions. Tentative levels and transitions are dashed.

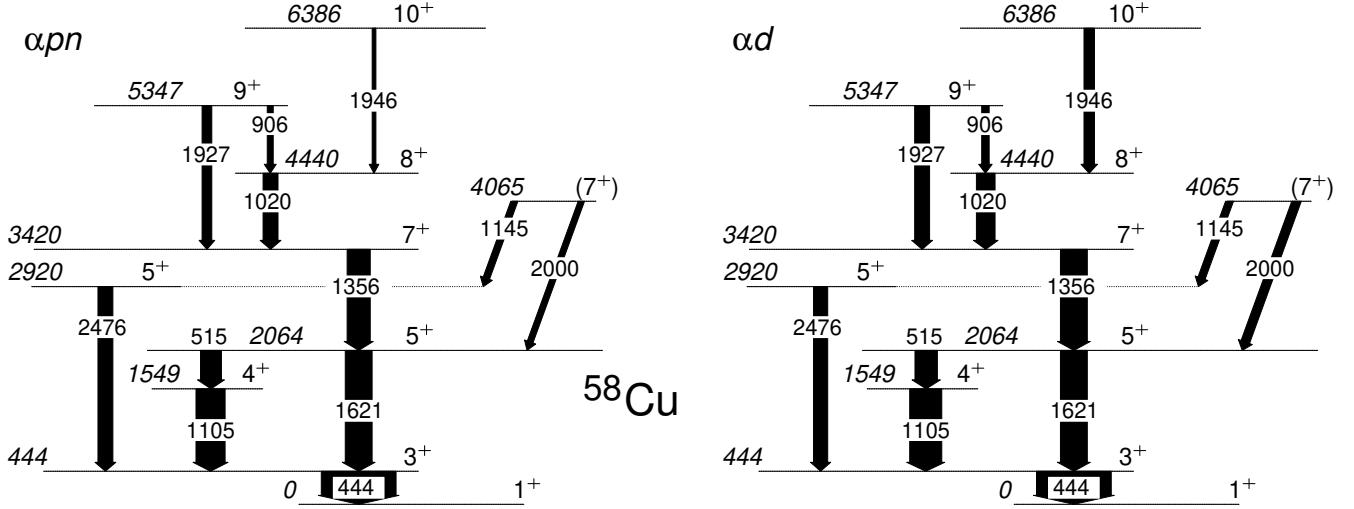


FIG. 3. Decay schemes of  $^{58}\text{Cu}$  [44,45] observed as (left)  $\alpha pn$ - and (right)  $\alpha d$ -evaporation channels from the compound nucleus  $^{64}\text{Ge}^*$ . Energy labels of excited states and  $\gamma$ -ray transitions are in keV. The widths of the arrows correspond to the relative intensities of the transitions.