## $^{1}H(^{62}Cr,^{62}Cr'\gamma)$ 2009Ao01

History

| Type | Author | Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Alan L. Nichols, Balraj Singh, Jagdish K. Tuli | NDS 113, 973 (2012) | 15-Apr-2012 |

2009Ao01 (also 2008Ao01): E=39 MeV/nucleon beam produced in the primary reaction $^{9}Be(^{70}Zn,X)$ with a beam energy of 63 MeV/nucleon. Selected $^{62}Cr$ nuclei for secondary beam using RIKEN projectile-fragment separator. Liquid hydrogen target part of CRYPTA system. Measured E$\gamma$, I$\gamma$, $\gamma\gamma$, (particle)$\gamma$ coin using DALI2 array of 160 NaI(Tl) scintillators. Scattered particles were identified using time-of-flight mass analyzer TOMBEE and $\Delta$E-E telescopes. Comparisons with shell-model calculations.

### $^{62}Cr$ Levels

| E(level) | $J^{\pi}$[†] | Comments |
|---|---|---|
| 0 | $0^+$ | |
| 449 *4* | $(2^+)$ | Measured excitation cross section=38 mb *6*.<br>Deformation parameter=0.27 *3*.<br>Deformation length=1.36 fm *14*. |
| 1183 *11* | $(4^+)$ | |

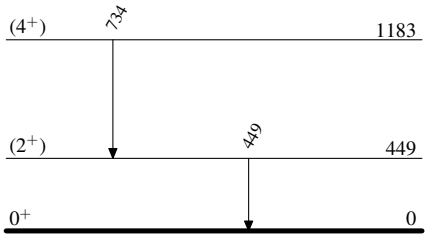
[†] From systematics of even-even nuclides.

### $\gamma(^{62}Cr)$

| E$\gamma$ | E$_i$(level) | $J_i^{\pi}$ | E$_f$ | $J_f^{\pi}$ |
|---|---|---|---|---|
| 449 *4* | 449 | $(2^+)$ | 0 | $0^+$ |
| 734 *10* | 1183 | $(4^+)$ | 449 | $(2^+)$ |

## $^{1}H(^{62}Cr,^{62}Cr'\gamma)$ 2009Ao01

### Level Scheme




$^{62}_{24}Cr_{38}$