

NUCLEAR DATA SHEETS

Table 3
Transition quadrupole moments and deformation parameters in SD Bands

Nucleus	SD Band	Q_7	β_2	X	Reference
²⁰ Ne		0.56 ₃	0.58 ₃	1.70 ₄	1971Ha26
³⁶ Ar		1.18 ₉	0.47 ₃	1.55 ₄	2001Sv02
⁴⁰ Ca		1.80 ³⁹ ₂₉	0.58 ¹⁰ ₈	1.70 ¹⁵ ₁₂	2001Id01
⁵⁷ Co	1	1.9 ⁶ ₂	0.38 ¹⁰ ₇	1.43 ₉	2002Re09
⁵⁷ Co	2	1.9 ⁵ ₂	0.38 ¹² ₉	1.43 ¹⁶ ₁₂	2002Re09
⁵⁹ Ni	1	1.3 ₂	0.26 ₄	1.27 ₄	2002Yu01
⁵⁹ Ni	2	1.5 ₅	0.29 ₉	1.32 ₁₁	2002Yu01
⁵⁸ Cu		2.0 ₂	0.37 ₃	1.42 ₄	1998Ru01
⁵⁹ Cu		2.24 ₄₀	0.41 ₆	1.46 ₈	2000An32
⁶⁰ Zn		2.75 ₂₅	0.47 ₄	1.55 ₅	1999Sv01
⁶¹ Zn		3.0 ⁵ ₂	0.50 ⁷ ₅	1.59 ¹⁰ ₇	1999Yu10
⁶² Zn		2.7 ⁵ ₅	0.45 ¹⁰ ₈	1.52 ¹⁴ ₁₀	1997Sv02
⁶⁵ Zn	1	2.6 ₃	0.43 ₄	1.49 ₆	2000Yu02
⁶⁵ Zn	2	2.1 ₃	0.35 ₄	1.39 ₆	2000Yu02
⁶⁵ Zn	3	2.1 ₃	0.35 ₄	1.39 ₆	2000Yu02
⁶⁸ Zn		2.5 ⁷ ₇	0.40 ¹⁰ ₆	1.45 ¹³ ₇	1999De20
⁸⁰ Sr	1	3.42 ²⁶ ₂₃	0.39 ² ₂	1.44 ₃	1999Le56, 1997De51
⁸⁰ Sr	2	2.2 ⁶ ₅	0.26 ₅	1.28 ⁸ ₅	1997De51
⁸⁰ Sr	3	3.6 ²⁰ ₂₀	0.41 ¹⁹ ₁₉	1.46 ²⁶ ₂₆	1997De51
⁸⁰ Sr	4	2.8 ¹¹ ₈	0.33 ₉	1.36 ¹⁴ ₁₀	1997De51
⁸¹ Sr	1	3.30 ¹⁸ ₁₈	0.37 ₂	1.42 ₂	1999Le56, 1997De51, 1995Ch56
⁸¹ Sr	2	3.8 ⁷ ₅	0.43 ⁷ ₅	1.49 ⁹ ₇	1997De51, 1995Ch56
⁸² Sr		3.54 ¹⁵ ₁₄	0.40 ₁	1.45 ₂	1999Le56, 1998Yu01
⁸³ Sr		3.60 ²⁰ ₁₈	0.40 ₂	1.45 ² ₂	1999Le56, 1997De51, 1995La21
⁸² Y		4.8	0.51	1.60	1995Da30
⁸³ Y		4.4 ⁷	0.47 ₆	1.54 ₉	1999Le56
⁸³ Zr	1	5.0 ₂₀	0.51 ¹⁷ ₁₇	1.60 ²⁴ ₂₄	1996Ru16
⁸⁴ Zr		5.6 ⁶ ₅	0.56 ⁵ ₄	1.67 ⁷ ₆	1999Le56
⁸⁶ Zr	1	4.6 ⁶ ₆	0.46 ⁵ ₅	1.54 ⁷ ₆	1998Sa01
⁸⁶ Zr	2	4.0 ⁵ ₅	0.41 ₃	1.47 ₄	1998Sa01
⁸⁶ Zr	3	5.4 ²² ₁₁	0.53 ¹⁸ ₁₀	1.63 ²⁶ ₁₃	1998Sa01
⁸⁶ Zr	4	3.8 ⁶ ₆	0.39 ₅	1.44 ₆	1998Sa01
⁸⁷ Nb	1	5.2 ¹¹ ₉	0.50 ⁹ ₉	1.59 ¹³ ₁₃	1997La02
⁸⁷ Nb	2	5.0 ¹⁰ ₈	0.49 ⁶ ₆	1.57 ⁸ ₁₂	1997La02
⁸⁷ Nb	3	5.3 ¹⁰ ₁₀	0.51 ¹⁰ ₁₀	1.60 ¹² ₁₂	1997La02
⁸⁸ Mo	1	6.2 ²⁰ ₁₀	0.55 ¹⁵ ₁₅	1.66 ²⁵ ₁₆	1999Bb13
⁸⁹ Tc		6.7 ¹³ ₁₃	0.59 ¹¹ ₁₁	1.72 ²⁵ ₁₅	1999Ce09
⁹¹ Tc		8.1 ¹⁹ ₁₄	0.69 ¹³ ₁₃	1.85 ¹⁵ ₁₅	2000Id01
¹⁰⁵ Ag		4.5 ² ₂	0.35 ¹ ₁	1.39 ³ ₃	1995Je05
¹⁰⁸ Cd	1	>9.5	>0.65	>1.80	2001Cl06
¹⁰⁸ Cd	2	8.5	0.59	1.72	2002Go03
¹²⁹ Ce		6.3 ₄	0.35 ₂	1.38 ₃	1996Ga13
¹³¹ Ce	1	7.3 ₄	0.39 ₂	1.44 ₂	1998Pe01, 1996Cl03, 1993Mu09, 1990He12
¹³¹ Ce	2	8.5 ₄	0.45 ₂	1.52 ₂	1996Cl03
¹³² Ce	1	7.4 ₃	0.40 ₁	1.45 ₂	1996Cl03, 1998Jo16, 1995Ha28, 1990Di01, 1987Ki02
¹³² Ce	2	7.3 ₄	0.39 ₂	1.44 ₂	1996Cl03
¹³² Ce	3	7.6 ₄	0.40 ₂	1.46 ₂	1996Cl03
¹³³ Ce	1	7.4 ₇	0.39 ₃	1.44 ₄	1995Ha28
¹³³ Ce	2	7.5 ₈	0.40 ₄	1.45 ₅	1995Ha28
¹³⁰ Pr	1	6.1 ₅	0.33 ₂	1.36 ₃	1998Ko34
¹³⁰ Pr	2	6.1 ₅	0.33 ₂	1.36 ₃	1998Ko34
¹³¹ Pr	1	5.3 ₄	0.29 ₂	1.31 ₂	1998Ko34, 1994Ga31
¹³¹ Pr	2	5.3 ₄	0.29 ₂	1.31 ₂	1998Ko34, 1994Ga31
¹³² Pr	1	4.1 ₃	0.23 ₂	1.24 ₂	1999Ko21
¹³² Pr	2	7.0 ⁷ ₇	0.37 ₃	1.41 ₄	2002La09
¹³² Pr	3	7.0 ⁷ ₇	0.37 ₃	1.41 ₄	2002La09
¹³³ Nd		7.4 ₄	0.38 ₂	1.43 ₂	1999Br29, 1999Ko28, 1992Mu09, 1995Me08
¹³⁴ Nd	1	6.8 ₃	0.35 ₁	1.39 ₂	1998Pe01
¹³⁴ Nd	2	6.4 ₄	0.33 ₂	1.37 ₂	1998Pe01
¹³⁵ Nd		5.7 ₂	0.30 ₁	1.33 ₁	1999Ko28, 1998Pe01, 1990Di01
¹³⁷ Nd		4.0 ₅	0.21 ₂	1.22 ₃	1992Mu09, 1996Pe18
¹³³ Pm	1	5.0 ₄	0.26 ₂	1.28 ₂	2002La09, 1996Ga17
¹³³ Pm	2	5.0 ₄	0.26 ₂	1.28 ₂	2002La09, 1996Ga17
¹³⁶ Pm	1	5.2 ₃	0.27 ₁	1.29 ₂	2000Pf01
¹³⁶ Pm	2	5.2 ₄	0.27 ₂	1.29 ₂	2000Pf01
¹³⁶ Pm	3	5.7 ₆	0.29 ₃	1.32 ₃	2000Pf01

Nucleus	SD Band	Q_7	β_2	X	Reference
¹³⁶ Pm	4	5.7 ₆	0.29 ₃	1.32 ₃	2000Pf01
¹³⁵ Sm		6.4 ₄	0.32 ₂	1.35 ₂	2002La09, 1992Re05
¹³⁷ Sm		4.8 ₄	0.25 ₂	1.26 ₂	2002La09, 1992Re05
¹⁴² Sm	1	11.7 ¹⁴ ₁₄	0.53 ₅	1.63 ₈	1998Ha06
¹⁴² Sm	2	13.2 ¹⁸ ₁₈	0.59 ⁷ ₇	1.72 ¹⁰ ₁₀	1998Ha06
¹⁴³ Eu	1	13.0 ¹⁵ ₁₅	0.57 ₆	1.69 ₈	1995Fo02, 1993At01, 1993At03
¹³⁹ Gd		7.0 ¹⁵ ₁₅	0.33 ₆	1.37 ₈	1992Mu09, 1992Pa04
¹⁴⁴ Gd	1	13.7 ¹¹ ₉	0.59 ⁴ ₃	1.71 ⁶ ₅	1999Ur02
¹⁴⁵ Gd	1	11.8 ₈	0.52 ₃	1.61 ₄	2000Rz01
¹⁴⁵ Gd	2	13.2 ¹⁰ ₁₀	0.57 ₄	1.68 ₅	2000Rz01
¹⁴⁶ Gd	1	13.9 ₄	0.59 ₁	1.72 ₂	2001Cl05, 1990He14
¹⁴⁶ Gd	2	13.9 ₃	0.59 ₁	1.72 ₂	2001Cl05, 1992StZU
¹⁴⁸ Gd	1	14.6 ₂	0.61 ₁	1.75 ₁	1996Sa15
¹⁴⁸ Gd	2	14.8 ₃	0.62 ₁	1.76 ₂	1996Sa15
¹⁴⁸ Gd	3	17.8 ¹³ ₁₃	0.72 ₄	1.91 ₇	1996Sa15
¹⁴⁹ Gd	1	15.0 ₂	0.62 ₁	1.76 ₁	1996Sa15, 1998Kh09, 1988Ha02
¹⁴⁹ Gd	2	15.6 ₃	0.65 ₁	1.80 ₂	1996Sa15
¹⁴⁹ Gd	3	15.2 ₅	0.63 ₂	1.78 ₃	1996Sa15
¹⁴⁹ Gd	4	17.5 ₆	0.71 ₂	1.89 ₃	1996Sa15
¹⁵⁰ Gd	1	17.0 ⁵ ₄	0.69 ⁷ ₇	1.86 ² ₂	1998Be06, 1991Fa07
¹⁵⁰ Gd	2	16.8 ¹² ₁₂	0.68 ₄	1.85 ₆	1998Be06
¹⁵⁰ Gd	3	17.4 ⁵ ₄	0.70 ⁷ ₇	1.88 ³ ₃	1998Be06
¹⁵⁰ Gd	4	15.0 ⁴ ₄	0.62 ⁷ ₇	1.76 ² ₂	1998Be06
¹⁵⁰ Gd	5	16.2 ₄	0.66 ₁	1.82 ₂	1998Be06
¹⁵⁰ Gd	6	15.4 ⁸ ₅	0.64 ³ ₃	1.78 ⁴ ₃	1998Be06
¹⁴⁹ Tb	1	15.3 ₂	0.63 ₁	1.77 ₁	1998Kh09
¹⁴⁹ Tb	2	15.8 ⁴ ₄	0.64 ₁	1.79 ₂	1998Kh09
¹⁴⁹ Tb	3	16.4 ³ ₄	0.66 ₁	1.82 ₂	1998Kh09
¹⁴⁹ Tb	4	16.0 ⁶ ₅	0.65 ₂	1.80 ₃	1998Kh09
¹⁵¹ Tb	1	17.2 ₇	0.69 ₂	1.86 ₄	1998Fi01, 1997Ni01
¹⁵¹ Tb	2	18.4 ₈	0.73 ₃	1.92 ₄	1998Fi01
¹⁵¹ Dy	1	16.9 ² ₂	0.67 ₁	1.83 ₁	1997Ni01
¹⁵¹ Dy	2	18.2 ₄	0.71 ₁	1.89 ₂	1997Ni01
¹⁵¹ Dy	3	17.9 ₆	0.70 ₂	1.88 ₃	1997Ni01
¹⁵¹ Dy	4	17.5 ¹¹ ₇	0.69 ² ₂	1.86 ² ₂	1997Ni01
¹⁵² Dy	1	17.5 ⁴ ₂	0.69 ₁	1.85 ² ₁	1997Ni01, 1996Sa15, 1995Ce08, 1991Be12
¹⁵⁴ Dy		15.9 ³¹ ₂₁	0.63 ¹⁰ ₁₀	1.77 ¹⁵ ₁₀	1996Fi08
¹⁵⁵ Dy		17.9 ³⁹ ₂₆	0.69 ¹² ₁₂	1.86 ¹⁹ ₁₃	1996Fi08
¹⁶³ Lu	1	8.2 ¹⁰ ₆	0.32 ₂	1.35 ³ ₃	1993Sc13
¹⁶⁴ Lu	1	7.1 ⁶ ₆	0.28 ₂	1.30 ² ₂	2002Sc11
¹⁶⁸ Hf	1	11.4	0.42	1.47	2001Am02
¹⁹⁰ Hg	1	17.7 ²⁵ ₂₅	0.52 ₆	1.61 ₉	1997Am06, 1991Dr04
¹⁹⁰ Hg	2	17.6 ²⁵ ₂₅	0.52 ₆	1.61 ₉	1997Am06
¹⁹¹ Hg	1	17.5 ₈	0.51 ₂	1.60 ₃	1998ReZV, 1990Ca18
¹⁹¹ Hg	2	17.5 ₈	0.51 ₂	1.60 ₃	1998ReZV, 1990Ca18
¹⁹² Hg	1	20.2 ¹² ₁₂	0.58 ₃	1.69 ₄	1998Bu03, 1997Mo12, 1994Wi06, 1990Mo16
¹⁹² Hg	2	19.5 ¹⁵ ₁₅	0.56 ₄	1.67 ₅	1995Ko17
¹⁹³ Hg	1	18.4 ⁸ ₈	0.53 ₂	1.63 ₃	1998Bu03
¹⁹³ Hg	2	17.3 ¹¹ ₁₁	0.50 ³ ₃	1.59 ⁴ ₄	1998Bu03
¹⁹³ Hg	3	17.3 ¹¹ ₉	0.50 ³ ₂	1.59 ⁴ ₃	1998Bu03
¹⁹³ Hg	4	16.1 ¹⁵ ₁₄	0.47 ₄	1.55 ₅	1998Bu03
¹⁹³ Hg	5	16.7 ¹⁰ ₁₀	0.49 ₃	1.57 ₃	1998Bu03
¹⁹³ Hg	6	16.7 ¹⁴ ₁₃	0.49 ⁴ ₃	1.57 ₅	1998Bu03
¹⁹⁴ Hg	1	16.8 ₇	0.49 ₂	1.57 ₂	2001De42, 1997Mo12, 1997Ku03, 1994Hu05
¹⁹⁴ Hg	2	19.0 ²⁰ ₂₀	0.54 ₅	1.65 ₇	2001De42, 1997Mo12, 1997Ku03, 1994Hu05
¹⁹⁴ Hg	3	18.8 ²⁵ ₂₅	0.54 ₆	1.64 ₉	2001De42, 1997Mo12, 1997Ku03
¹⁹¹ Tl	1	18.0 ¹⁰ ₁₀	0.52 ₂	1.61 ₃	1998Re04
¹⁹¹ Tl	2	18.0 ¹⁰ ₁₀	0.52 ₂	1.61 ₃	1998Re04
¹⁹³ Tl	1	18.3 ¹⁰ ₁₀	0.52 ₂	1.62 ₃	1999Kr19
¹⁹³ Tl	2	17.4 ¹⁰ ₁₀	0.50 ₂	1.59 ₃	1999Kr19
¹⁹³ Pb	1	17.3 ⁷ ₈	0.49 ₂	1.58 ² ₂	1998Va18
¹⁹⁴ Pb	1	20.1 ² ₂	0.56 ₁	1.67 ¹ ₁	1998Va18, 1994Kr18
¹⁹⁵ Pb	1	19.5 ¹⁰ ₉	0.54 ₂	1.65 ₃	1998Va18
¹⁹⁵ Pb	2	19.5 ¹⁰ ₉	0.54 ₂	1.65 ₃	1998Va18
¹⁹⁶ Pb	1	19.5 ⁴ ₃	0.54 ₁	1.64 ₁	1998Va18, 1993Mo19
²³⁶ U		32 ⁵ ₃	0.67 ₉	1.84 ¹³ _{13</}	