

**Muonic atom** [1984Ta04,1977Li20](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 143, 1 (2017)	31-Mar-2017

Measured difference between  $E_\gamma$  in an ordinary atom and a muonic atom. Deduced muonic isomer shift. ([1974Ba77](#)).  
 Observed hyperfine splitting of the  $5/2^+$  to  $3/2^+$  transition ( $139\gamma$ ) in muonic atom ([1977Li20](#)).  
 Discussion of precision measurements of nuclear quadrupole moments by muonic X-rays ([1985St28](#)).

 $^{193}\text{Ir}$  Levels

E(level) <sup>†</sup>	$J^\pi$ <sup>†</sup>	Comments
0.0	$3/2^+$	Q=0.751 9 from hyperfine splitting of muonic x-rays ( <a href="#">1984Ta04</a> ).
138.941	$5/2^+$	

<sup>†</sup> From Adopted Levels.

 $\gamma(^{193}\text{Ir})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Comments
138.9	138.941	$5/2^+$	0.0	$3/2^+$	$E_\gamma$ : rounded-off value from Adopted Gammas. $E_\gamma(\text{ordinary atom}) - E_\gamma(\text{muonic atom}) = -0.27 5$ ( <a href="#">1974Ba77</a> ); $\gamma$ observed by <a href="#">1977Li20</a> .

**Muonic atom** [1984Ta04,1977Li20](#)Level Scheme