

FRACTIONS OF ZERO-PHONONS
FOR ^{57}Fe AND ^{119}Sn SOURCE MATERIALS

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Values of fractions of zero-phonons f_g for ^{57}Fe and ^{119}Sn source materials have been compiled. Some of them, according to their quality, have been included in an averaging procedure the details of which are described in /1/.

Averaged values for f_g are summarized in Table 1. Abbreviations R, N and He stand for room temperature, liquid nitrogen temperature and liquid helium temperature, respectively. Uncertainties of f_g , given in parentheses, indicate estimated deviation; e.g., $0.697/15/ = 0.697 \pm 0.015$.

Averaged values for f_g for other Mössbauer isotopes will be published elsewhere.

References:

- /1/ J.G.Stevens, B.D.Dunlap, J. Phys. Chem. Ref. Data,
5, 1093 /1976/

Table 1. Summary of adopted values for f_s

Isotope	Energy /keV/	Source material	Source temperature	f_s
^{57}Fe	14.41	CoO	R	0.697/15/
			R	0.784/9/
			R	0.708/1/
		Pd	N	0.882/2/
			He	0.910/2/
			R	0.660/1/
			N	0.863/2/
			He	0.813/17/
			R	0.724/2/
		Pt	N	0.890/4/
			He	0.851/53/
			R	0.784/13/
			He	0.875/18/
			R	0.670/70/
			R	0.678/20/
		^{119}Sn	23.87	BaSnO ₃
R	0.574/17/			
R	0.280/26/			
Mg ₂ Sn	N			0.770/80/
	R			0.383/29/
	R			0.340/50/
Pd/Sn/	He			0.750/15/
	R			0.046/3/
	N			0.446/12/
Pd ₃ Sn	He			0.716/16/
	R			0.471/28/
	N			0.585/35/
β -Sn	He			0.885/15/
	R			
SnO ₂	R			
	N			