

# Summary of CERES Fission Product Analysis and some observations on Pu239 Fission Spectra

Copies of Overheads Presented to  
JEF Meeting, December 1996

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JEF/DOC - 648

**Summary of CERES Fission Product Analysis**  
(presented to JEF Meeting, December 1996)

Fission Product	CERES Sample Reactivity (C-M)/M		
	DIMPLE (Assembly II)		MINERVE
	SCALE ENDF/B-V	WIMS7 JEF2.2	WIMS7 JEF2.2
Sm147	-2%	1%	3%
Sm149	-3%	-5%	-2%
Sm152	-1%	1%	-2%
Nd143	-1	-6%	-4%
Nd145	1%	-1%	0%
Ag109	4%	2%	3%
Gd155	4%	4%	2%
Tc99	5%	7%	-3%
Mo95	19%	6%	11%
Rh103	16%	11%	11%
Cs133 (II)	10%	11%	9%
Cs133 (III)	12%	12%	7%
Eu153	19%	-9%	-10%

Notes:

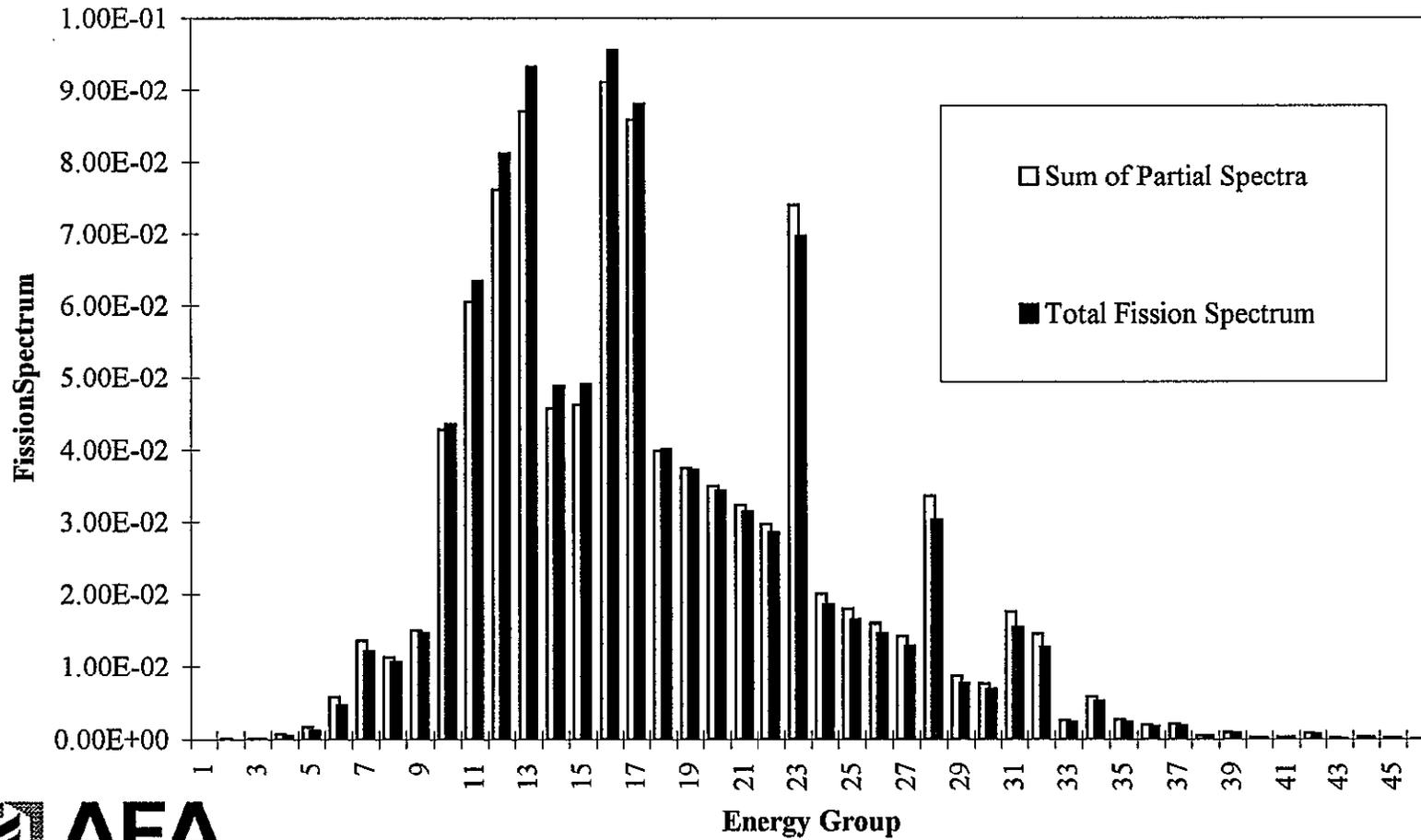
1. CEA93 is 172 group JEF2.2 Library
2. Eu153 results to be corrected for Eu151 impurity in sample.
3. Second batch of Cs133 samples measured in CERES Phase III.
4. WIMS7/JEF2.2 consistent with APOLLO2/CEA93



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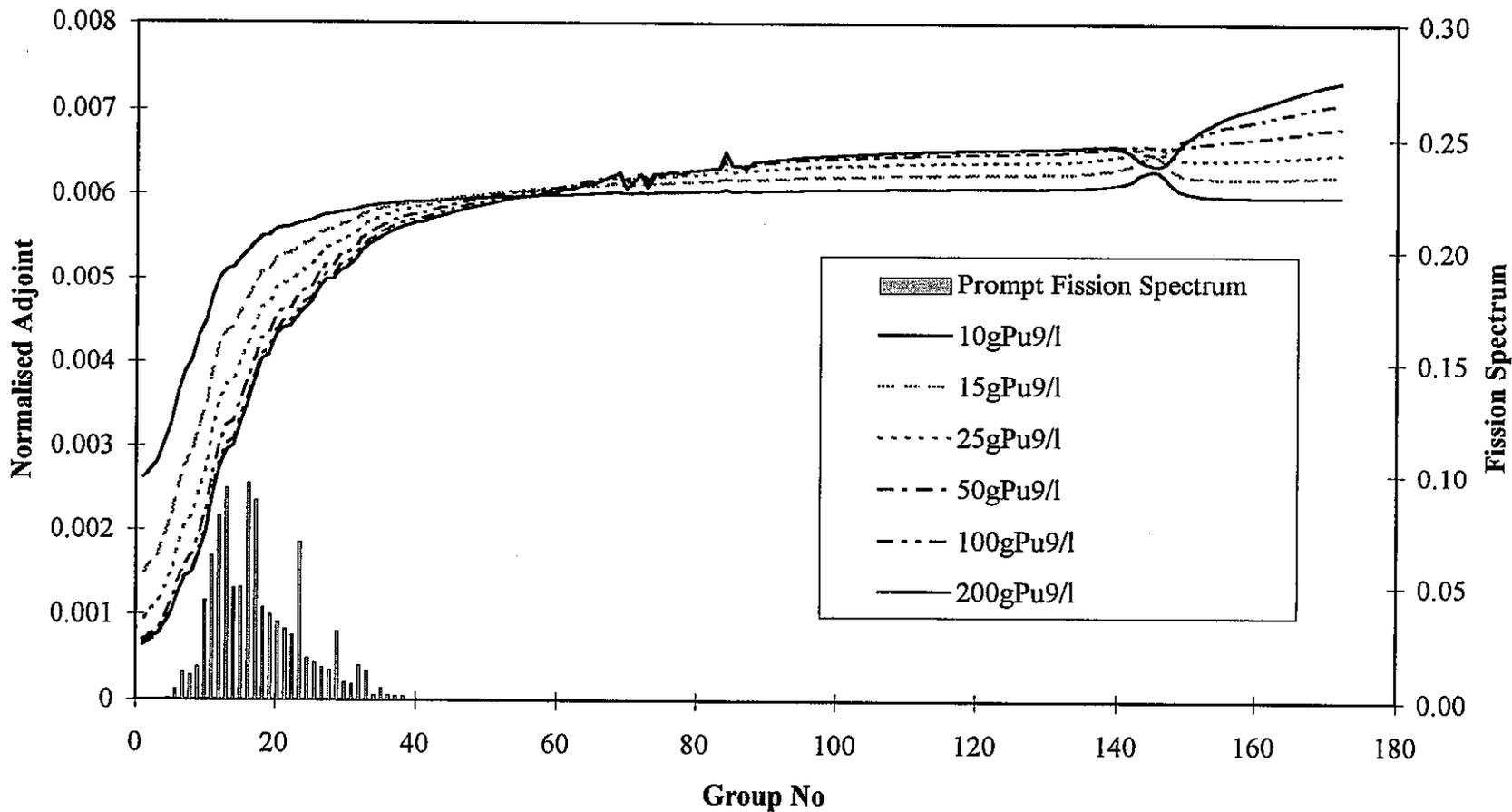
## Comparison of Total and Sum of Partial Fission Spectra for Pu239



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# Adjoints and Fission Spectrum in Pu239 Solutions



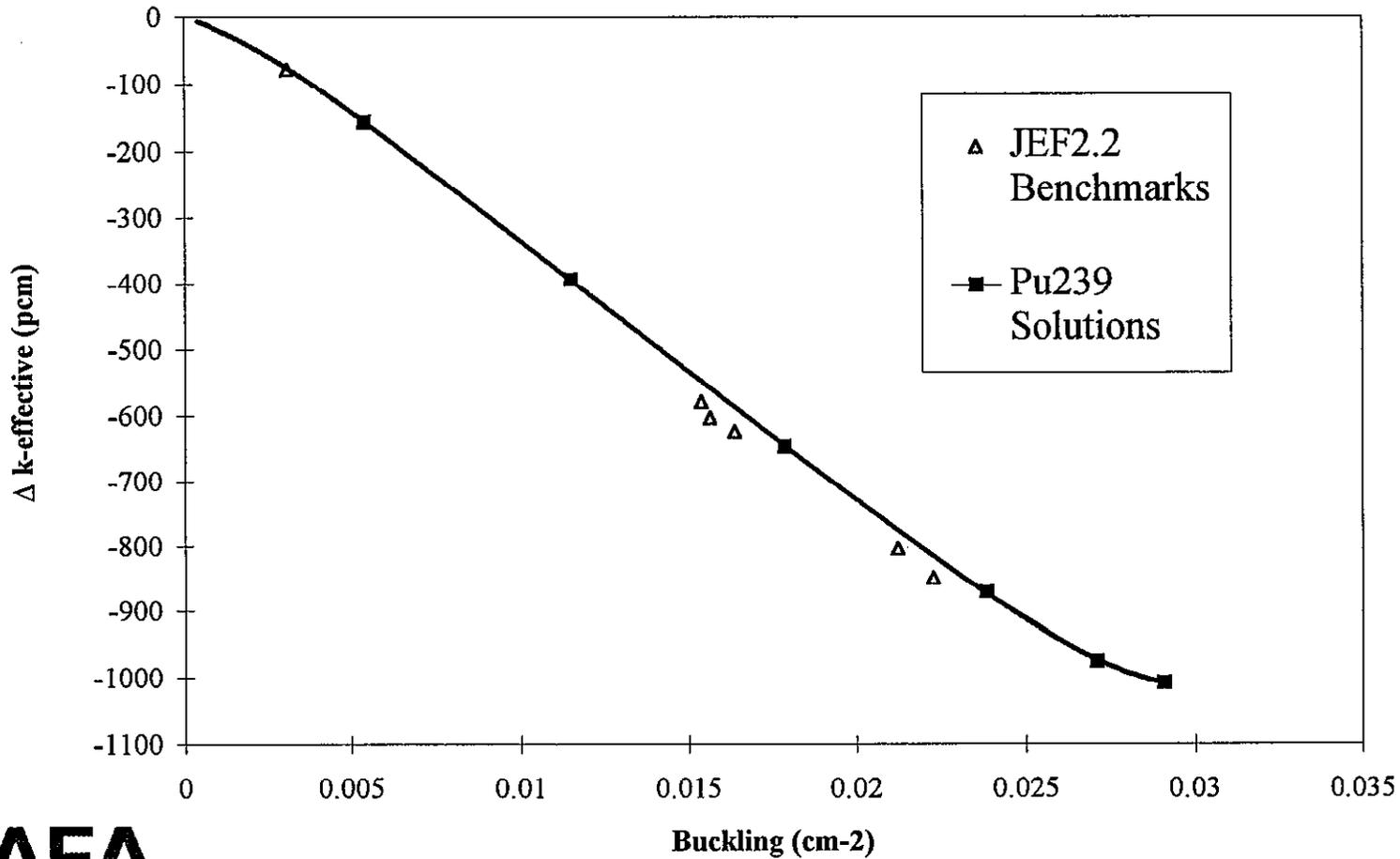
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# Correction to Calculated k-effective for Difference in Fission Spectrum

( $\Delta k$  evaluated as fractional difference in mean fission adjoint)



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