LLNL Evaluations for ^{74,75}As

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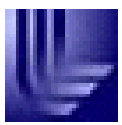
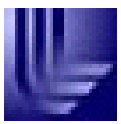
- What we did
- ^{74}As plots
- ^{75}As plots
- Remaining problem

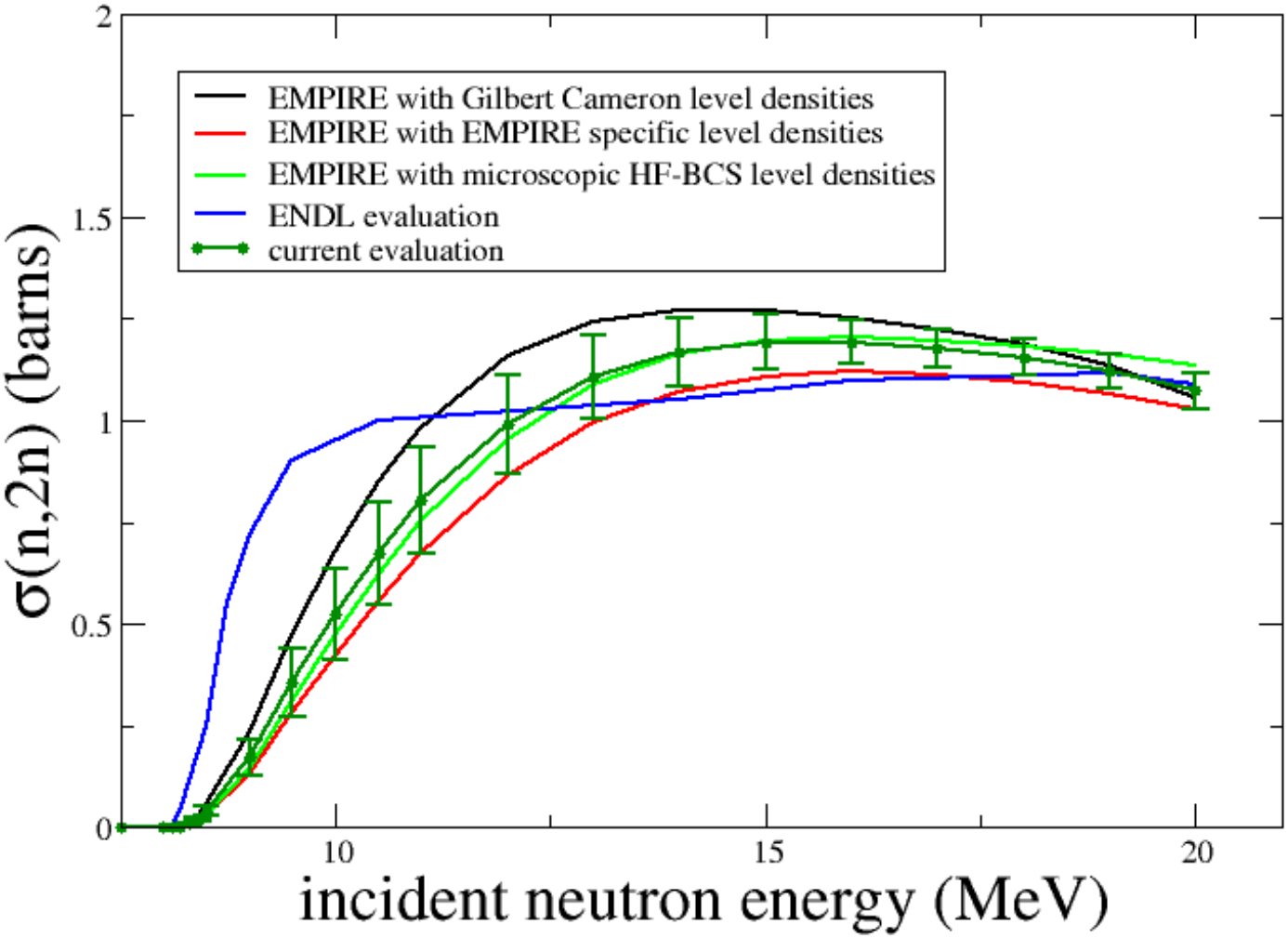


What we did

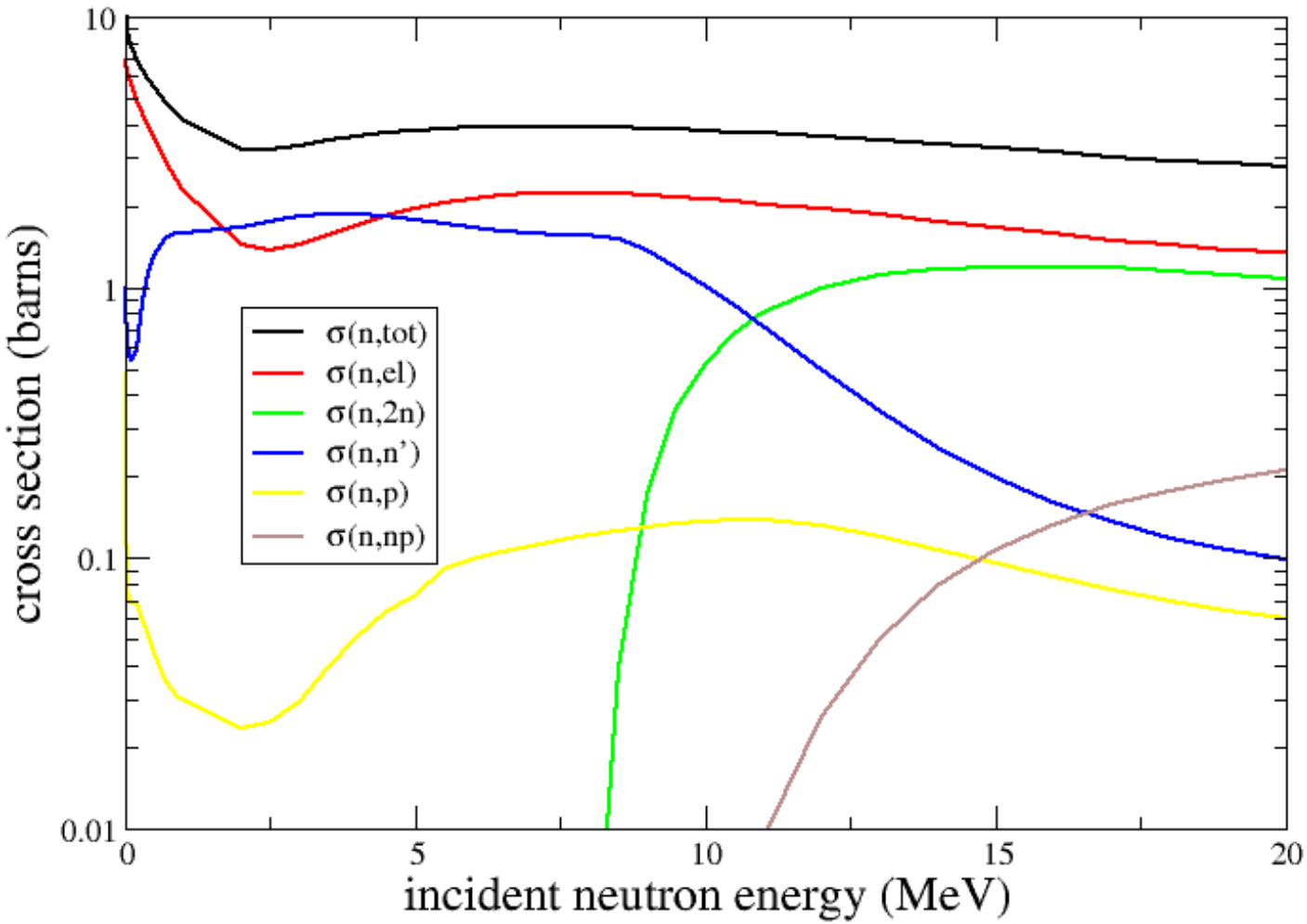
- ^{74}As:
  - MF=2: Taken from the JEFF-3.1 evaluation.
  - MF=3: Evaluated by J. Pruet, D. McNabb & E. Ormand (UCRL-TR-210452). Based on EMPIRE calculations with spherical Koning-Delaroche OMP.
  - MF=4,6,12,14: EMPIRE calculations.
- ^{75}As:
  - MF=2: Taken from JENDL-3.3 evaluation.
  - MF=3: (n,total) and (n,2n) fit to experiment. Other cross sections from EMPIRE calculations w/ spherical Koning-Delaroche OMP. These have been uniformly rescaled to preserve evaluated total cross section.
  - MF=4,6,12,14: From the EMPIRE calculations.



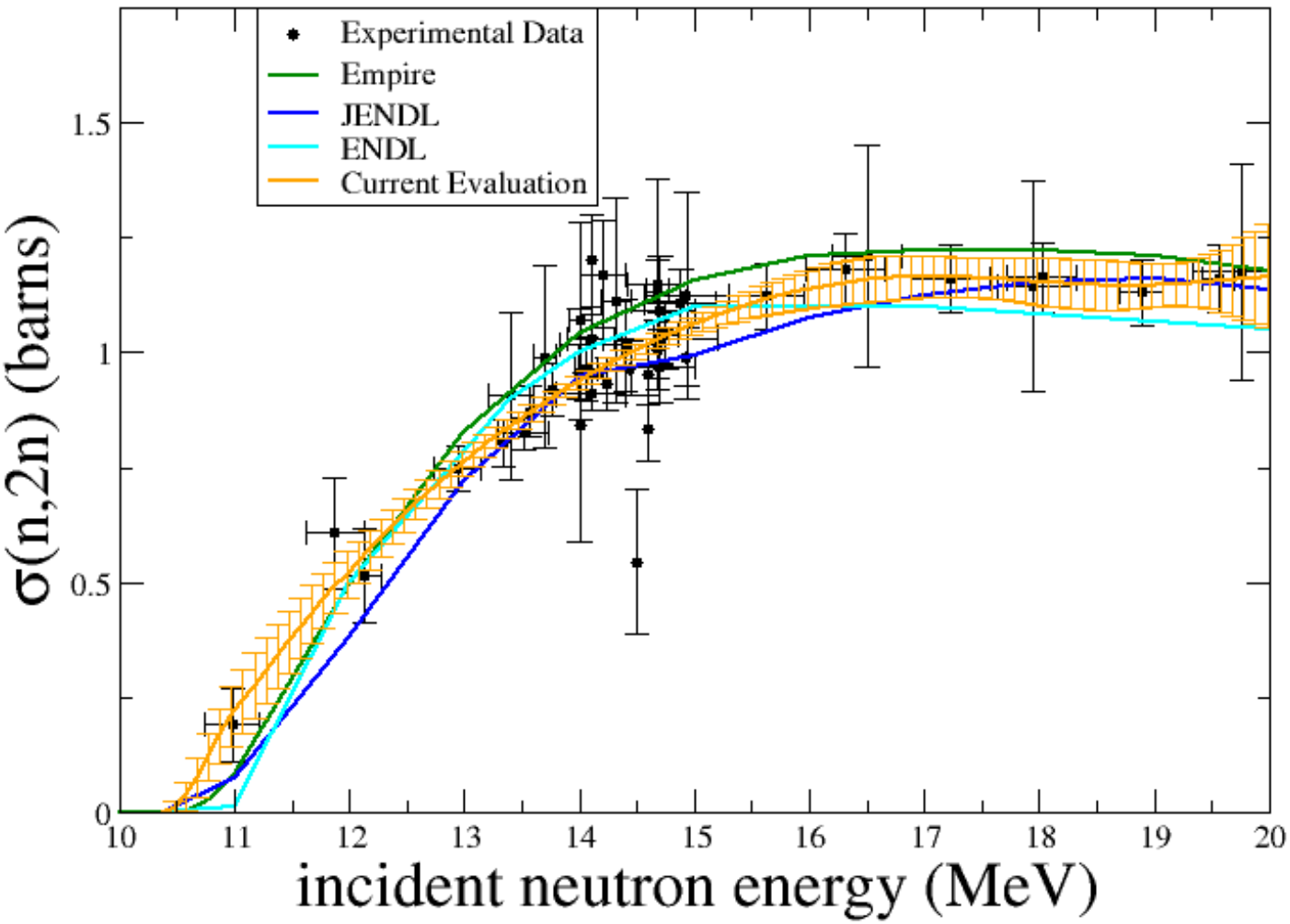
^{74}As(n,2n)


EMPIRE with Gilbert Cameron level densities
EMPIRE with EMPIRE specific level densities
EMPIRE with microscopic HF-BCS level densities
ENDL evaluation
current evaluation
σ(n,2n) (barns)
incident neutron energy (MeV)
0
0.5
1
1.5
2
10
15
20

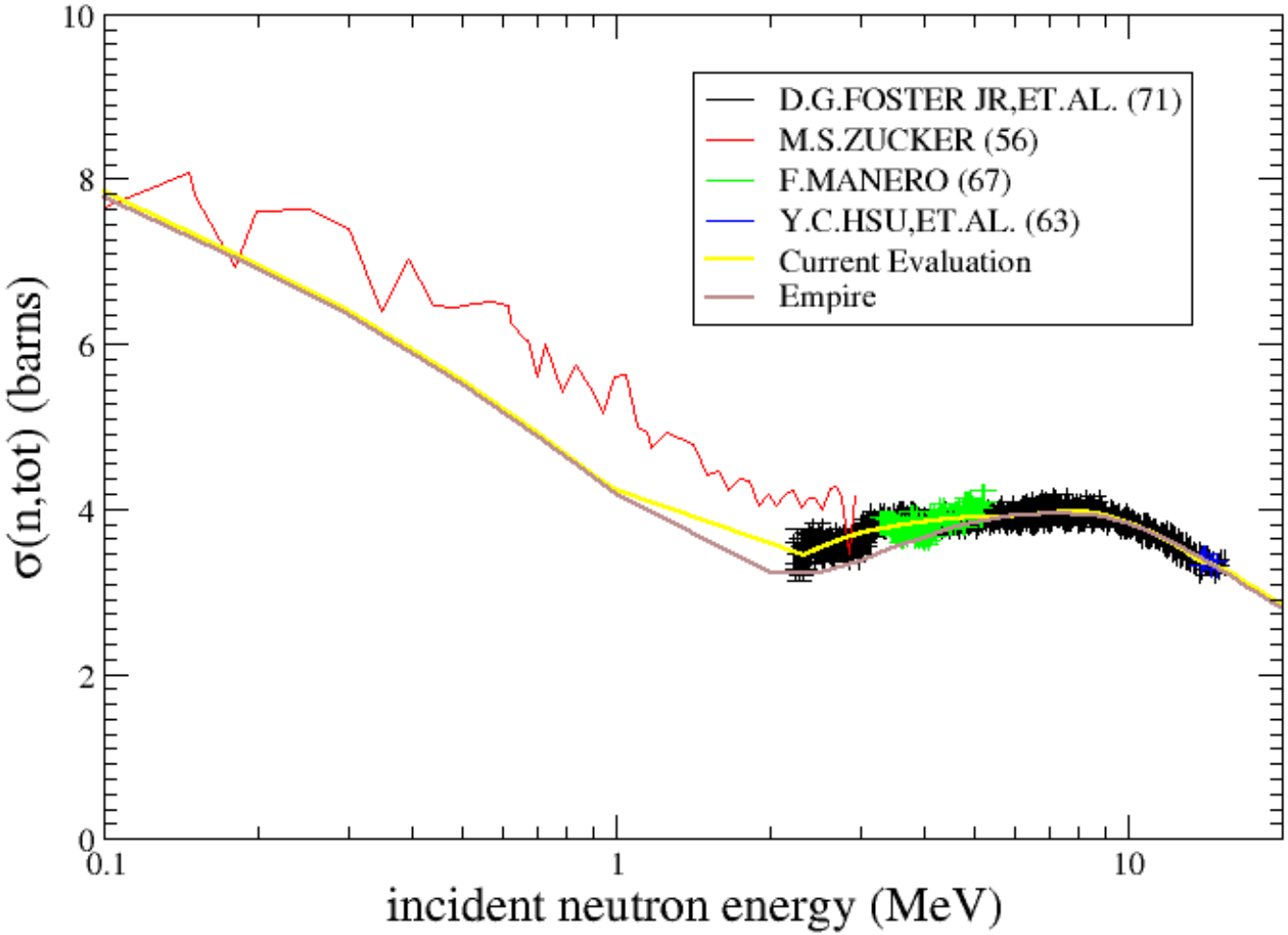
other ^{74}As cross sections



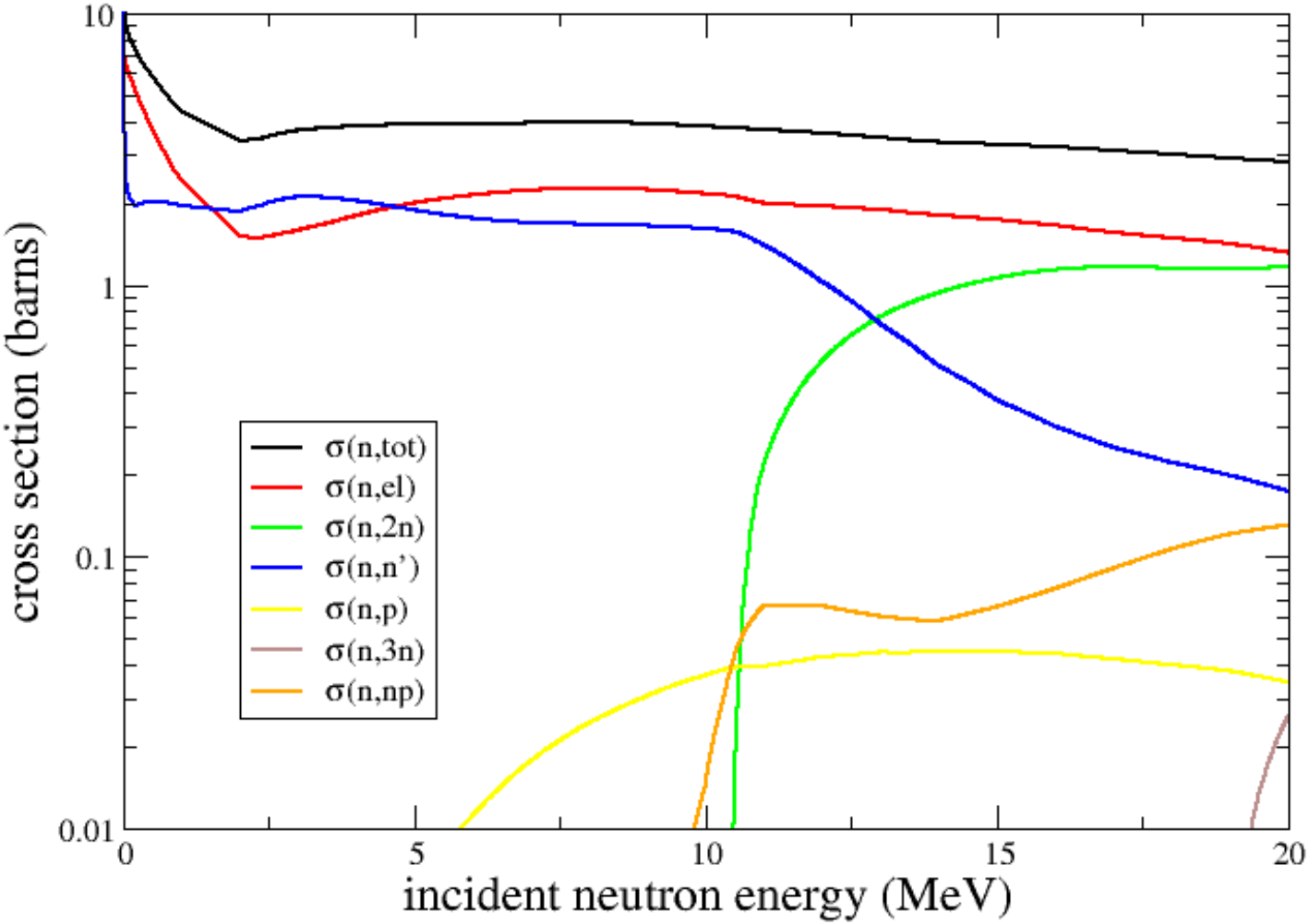
^{75}As(n,2n)


Experimental Data
Empire
JENDL
ENDL
Current Evaluation
σ(n,2n) (barns)
0
0.5
1
1.5
10
11
12
13
14
15
16
17
18
19
20
incident neutron energy (MeV)

^{74}As(n,tot)


D.G.FOSTER JR,ET.AL. (71)
M.S.ZUCKER (56)
F.MANERO (67)
Y.C.HSU,ET.AL. (63)
Current Evaluation
Empire
σ(n,tot) (barns)
incident neutron energy (MeV)
0
2
4
6
8
10
0.1
1
10

other ^{75}As cross sections



Remaining problem

- Energy ranges from EMPIRE do not go down to thermal, what should we use and how should we do it?