

[21550001]



The experiments involve encircling a thin rod of palladium metal with a wire of platinum and plunging the two electrodes into "heavy" water in which the hydrogen atoms are a doubly heavy form known as deuterium .

[21550013]

When an electric current is applied to the palladium and platinum electrodes , the heavy water did begin to break up , or dissociate .

[21550015]

But Messrs. Fleischmann and Pons said their experiments also produced large amounts of heat .

[21550016]

The heat energy plus the energy consumed by the breakup of the water molecules added to far more energy coming out of the apparatus than electrical energy going in , they reported .

[21550017]

Because they also detected tritium and indications of nuclear radiation , they asserted that the "excess" heat energy must be coming from energy released by the nuclear fusion of deuterium atoms inside the palladium rod .

[21550018]

As of last weekend , a dozen labs also have reported measuring "excess" heat from similar electrolytic experiments , although amounts of such heat vary widely .

[21550019]

One of the seven reports presented here of excess heat production was given by Richard A. Oriani , professor of chemical engineering at the University of Minnesota .

[21550020]

Mr. Oriani said his skepticism of the Utah claims was initially confirmed when his first experiments last spring failed to produce results .

[21550021]

But he then borrowed a palladium rod from chemists at Texas A&M who said they were getting excess heat .

[21550022]

"The results were fascinating," he said .

[21550023]

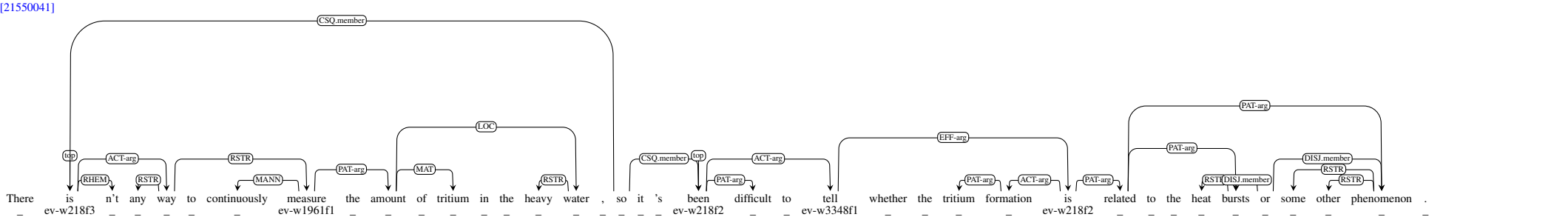
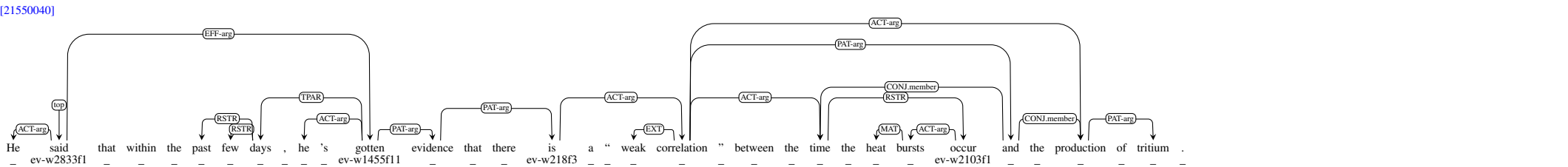
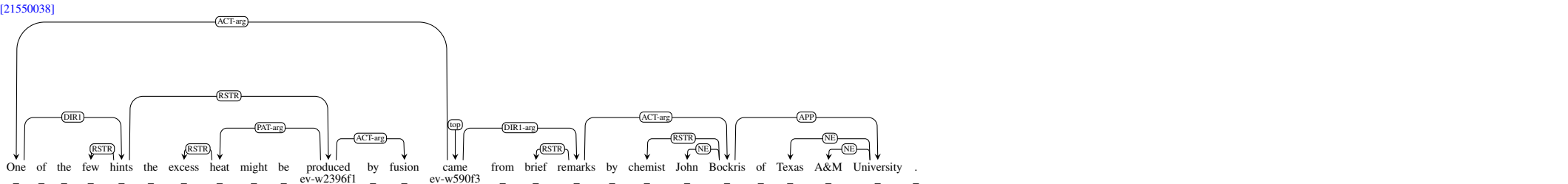
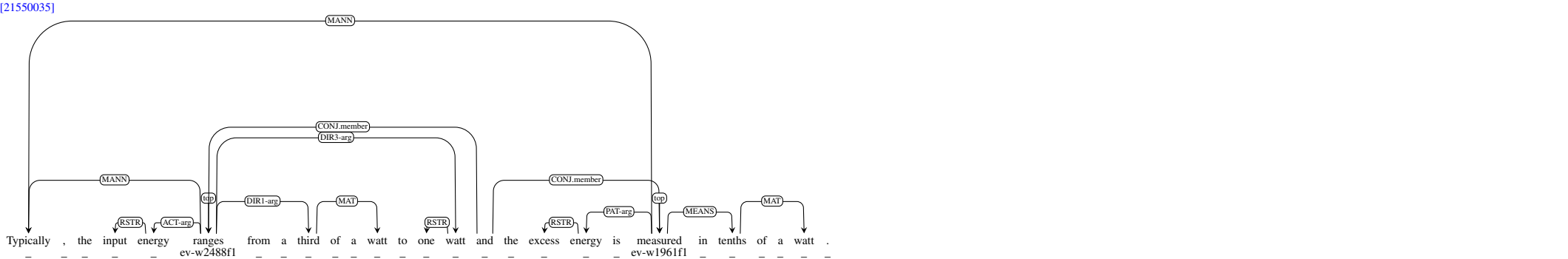
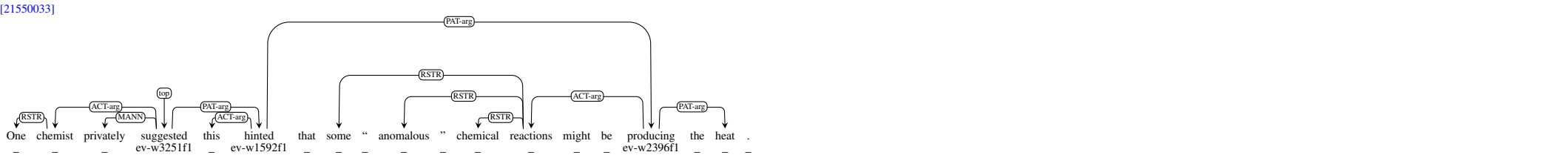
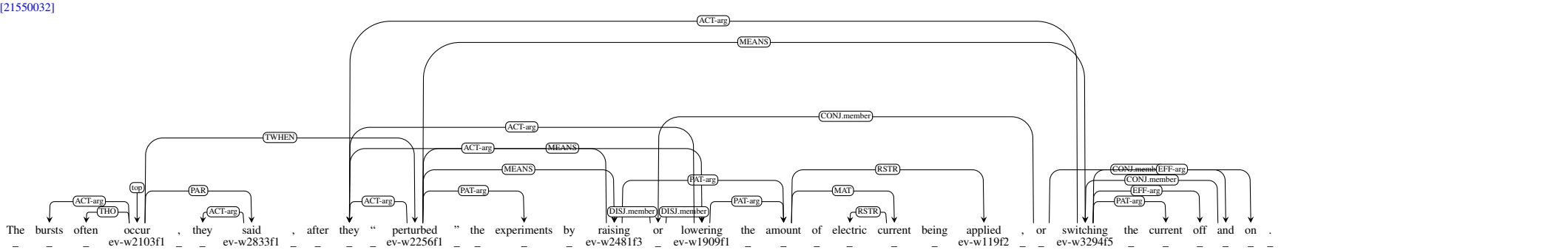
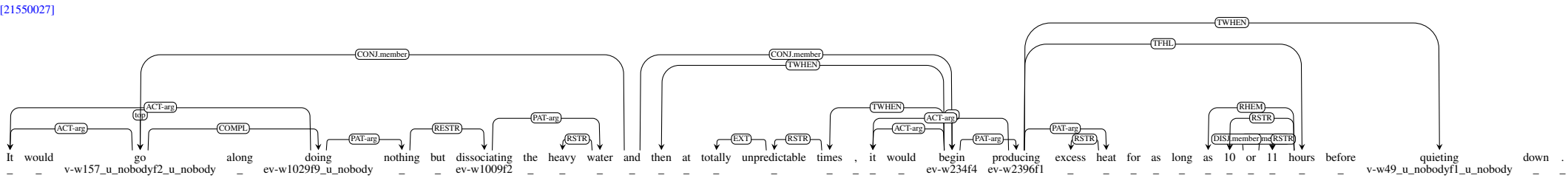
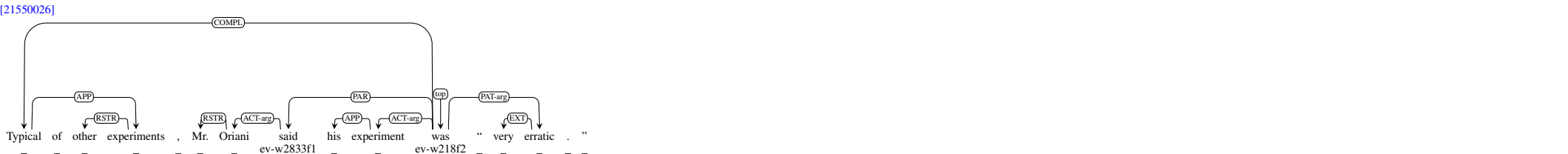
On the fourth "run" with the borrowed rod , the experiment began producing excess heat .

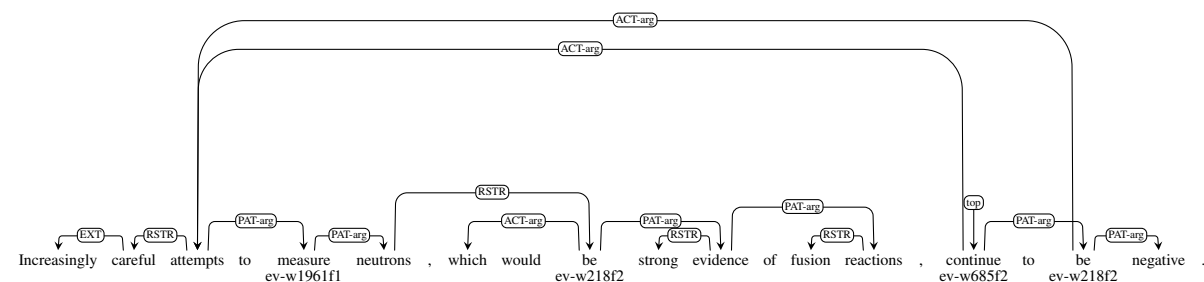
[21550024]

The experiment was stopped briefly to change an instrument .

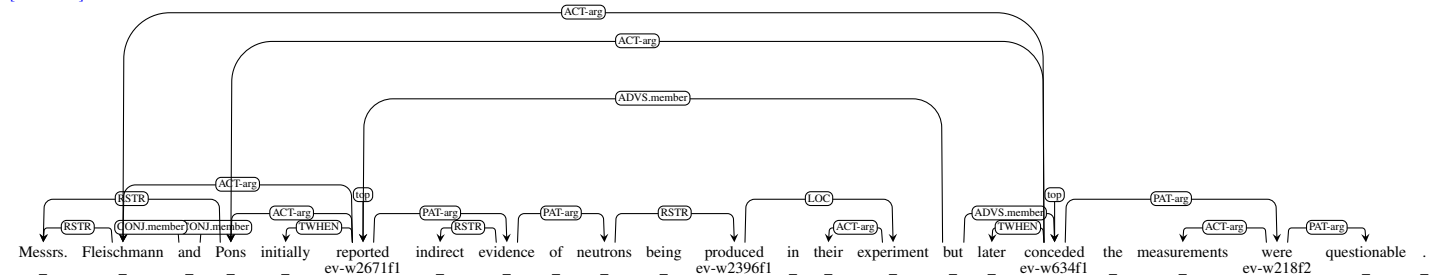
[21550025]

When it was restarted , heat output "really took off" and produced excess heat for several hours before dying down , he said .

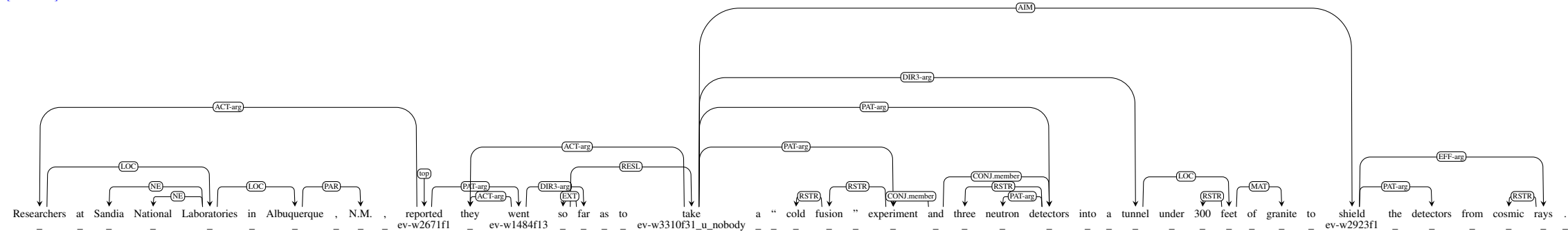




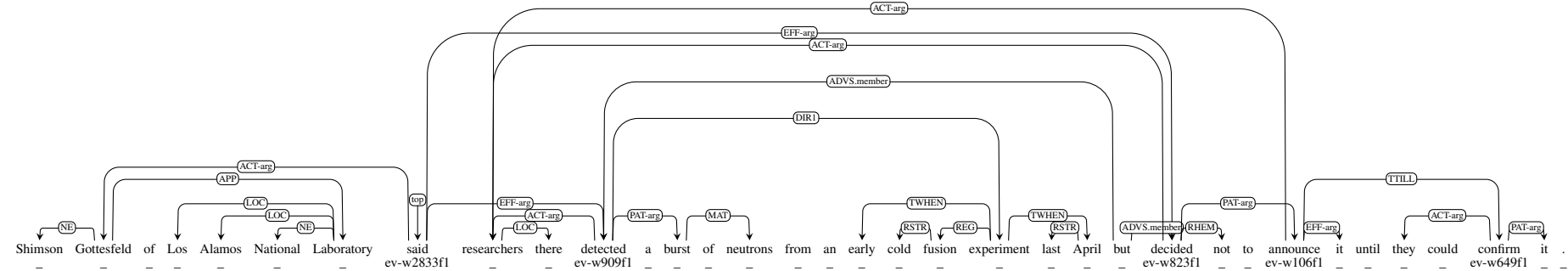
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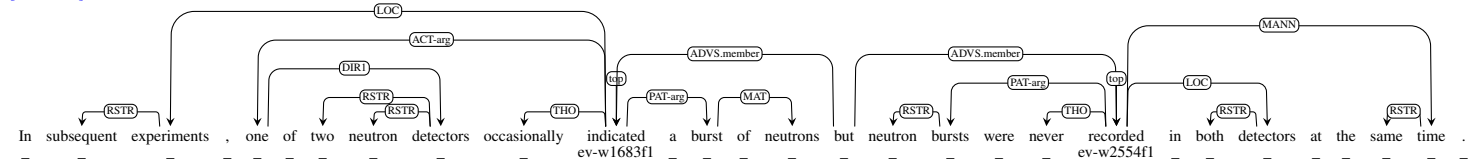
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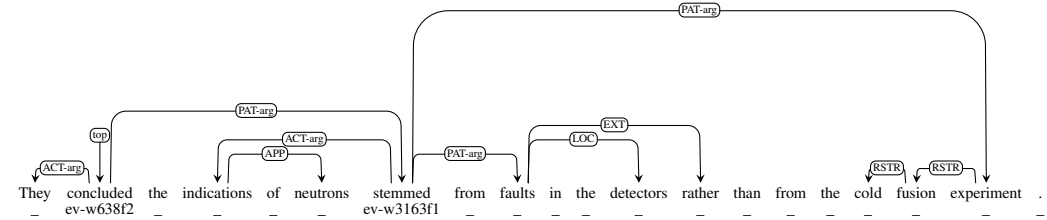
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[21550047]



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