

# Melba Newell Phillips

*Hazleton, Indiana*  
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news.uchicago.edu/releases/04/0411  
16.phillips.shtml](http://www-news.uchicago.edu/releases/04/041116.phillips.shtml)



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Melba Phillips was a respected theoretical physicist, an influential educator, and a proponent of moral responsibility for scientists. Born in Gibson County, Phillips knew by high school that she "was going to become a physicist." After graduating from Indiana's Oakland City College (now University), she earned a master's degree in physics, and began her doctoral studies in the cutting edge physics program at the University of California, Berkeley. Here she worked closely with J. Robert Oppenheimer, earning her PhD in 1933.

She continued to work with Oppenheimer to develop the theoretical solution to experiments in particle acceleration that created radioactive elements. Their findings, published in 1935, became known as the Oppenheimer-Phillips Process, still considered an important contribution to quantum theory.

Phillips accepted a faculty position at Brooklyn College in 1938 and briefly worked at the Harvard Radio Research Laboratory during WWII. She became increasingly concerned with social justice issues during the war, and called on scientists to lead the transition to peace. After the U.S. dropped two atomic bombs on Japan in 1945, she called for the demilitarization of scientific discovery and leadership of scientists in policymaking.

Her membership in the Federation of American Scientists, among other organizations, brought her to the attention of groups caught up in the hysteria of McCarthyism. In 1952, she was called before the McCarran Committee, a U.S. Senate subcommittee. She refused to "name names," or accuse others of communist involvement to protect herself, and thus lost her university positions. Before again finding employment, she wrote several physics textbooks which served as staples in physics classrooms. Among her many awards and achievements, she served as president of the American Association of Physics Teachers. She retired from the University of Chicago in 1972 and returned to Pike County toward the end of her life.