

## QUIZ: Women Scientists who made Nuclear Astrophysics

This Quiz is based on the NIC poster of the same title in which we present a selection of twelve outstanding women who helped develop nuclear astrophysics - some famous, some less so. The final aim is to produce a calendar, which will be translated into several languages.

This project is developed as part of the COST Action ChETEC (chetec.eu, CA16117).

1. Who discovered two chemical elements, polonium and radium?  
A. Marie Curie  
B. Lise Meitner  
C. Margaret Burbidge  
D. Beatrice Hill Tinsley  
E. Maria Goeppert Mayer
2. She did pioneering research on the theory of stellar nucleosynthesis.  
A. Edith Alice Muller  
B. Margaret Burbidge  
C. Dilhan Ezer Eryurt  
D. Georgeanne Caughlan  
E. Erika Böhm-Vitense
3. Her most significant scientific achievement is the theoretical explanation of nuclear fission.  
A. Maria Goeppert Mayer  
B. Georgeanne Caughlan  
C. Lise Meitner  
D. Toshiko Yuasa  
E. Dilhan Ezer Eryurt
4. She obtained a fellowship at the Radium Institute in Paris working with Marie Curie after a career teaching in secondary schools.  
A. Lise Meitner  
B. Beatrice Hill Tinsley  
C. Maria Goeppert Mayer  
D. Stefania Mărăcineanu  
E. Georgeanne Caughlan
5. Who worked with Frédéric Joliot-Curie on artificial radioactivity?  
A. Stefania Mărăcineanu  
B. Lise Meitner  
C. Maria Goeppert Mayer  
D. Cecilia Payne-Gaposchkin  
E. Toshiko Yuasa
6. The first woman to be appointed General Secretary of the International Astronomical Union (IAU).  
A. Cecilia Payne-Gaposchkin  
B. Dilhan Ezer Eryurt  
C. Margaret Burbidge  
D. Toshiko Yuasa  
E. Edith Alice Muller
7. She obtained her PhD in Physics at the age of 48, after raising 5 children.  
A. Cecilia Payne-Gaposchkin  
B. Edith Alice Muller  
C. Dilhan Ezer Eryurt  
D. Georgeanne Caughlan  
E. Erika Böhm-Vitense
8. She worked on the observation and theory of the solar atmosphere.  
A. Georgeanne Caughlan  
B. Margaret Burbidge  
C. Edith Alice Muller  
D. Beatrice Hill Tinsley  
E. Cecilia Payne-Gaposchkin
9. Her work was considered revolutionary with the discovery that the Universe was in a state of infinite expansion.  
A. Margaret Burbidge  
B. Beatrice Hill Tinsley  
C. Edith Alice Muller  
D. Cecilia Payne-Gaposchkin  
E. Erika Böhm-Vitense
10. She received the Apollo Achievement Award in 1969 for her contributions to the first landing on the Moon project.  
A. Dilhan Ezer Eryurt  
B. Margaret Burbidge  
C. Edith Alice Muller  
D. Beatrice Hill Tinsley  
E. Cecilia Payne-Gaposchkin
11. She invented and developed a fleet of mobile, x-ray vehicles and then, operated one of the x-ray vehicles on the WWI battlefield.  
A. Marie Curie  
B. Stefania Mărăcineanu  
C. Dilhan Ezer Eryurt  
D. Erika Böhm-Vitense  
E. Georgeanne Caughlan
12. Who worked for the Manhattan project?  
A. Cecilia Payne-Gaposchkin  
B. Maria Goeppert Mayer  
C. Erika Böhm-Vitense  
D. Georgeanne Caughlan  
E. Beatrice Hill Tinsley
13. Who won a Nobel Prize in Chemistry in 1911?  
A. Margaret Burbidge  
B. Maria Goeppert Mayer  
C. Marie Curie  
D. Erika Böhm-Vitense  
E. Lise Meitner
14. She discovered a number of radioactive isotopes, such as Pa-231.  
A. Edith Alice Muller  
B. Toshiko Yuasa  
C. Maria Goeppert Mayer  
D. Lise Meitner  
E. Stefania Mărăcineanu
15. Who was the first woman to chair a department at Harvard?  
A. Maria Goeppert Mayer  
B. Georgeanne Caughlan  
C. Margaret Burbidge  
D. Stefania Mărăcineanu  
E. Cecilia Payne-Gaposchkin
16. Her work on magic numbers won her the Nobel Prize in 1963.  
A. Marie Curie  
B. Lise Meitner  
C. Toshiko Yuasa  
D. Georgeanne Caughlan  
E. Maria Goeppert Mayer
17. Who discovered that hydrogen and helium are much more abundant in stars than all other chemical elements?  
A. Edith Alice Muller  
B. Dilhan Ezer Eryurt  
C. Toshiko Yuasa  
D. Cecilia Payne-Gaposchkin  
E. Beatrice Hill Tinsley
18. She studied the rates at which nuclei inside stars combine to produce new nuclei.  
A. Edith Alice Muller  
B. Dilhan Ezer Eryurt  
C. Georgeanne Caughlan  
D. Margaret Burbidge  
E. Beatrice Hill Tinsley
19. She was the first scientist to accurately describe convective mixing in stellar interiors.  
A. Edith Alice Muller  
B. Erika Böhm-Vitense  
C. Dilhan Ezer Eryurt  
D. Cecilia Payne-Gaposchkin  
E. Beatrice Hill Tinsley
20. The first woman president of the American Astronomical Society.  
A. Margaret Burbidge  
B. Erika Böhm-Vitense  
C. Cecilia Payne-Gaposchkin  
D. Marie Curie  
E. Beatrice Hill Tinsley

FILL IN ANSWERS HERE.

1	A	B	C	D	E
2	A	B	C	D	E
3	A	B	C	D	E
4	A	B	C	D	E
5	A	B	C	D	E
6	A	B	C	D	E
7	A	B	C	D	E
8	A	B	C	D	E
9	A	B	C	D	E
10	A	B	C	D	E
11	A	B	C	D	E
12	A	B	C	D	E
13	A	B	C	D	E
14	A	B	C	D	E
15	A	B	C	D	E
16	A	B	C	D	E
17	A	B	C	D	E
18	A	B	C	D	E
19	A	B	C	D	E
20	A	B	C	D	E