Discussion Question Answers
Marietta Blau

1. When and where did Marietta Blau receive her PhD? What did she study?
Blau received her PhD in Vienna in 1919. She studied ray physics, specifically the absorption of
gamma rays.

2. Where did Blau primarily conduct research throughout the 1920s and 1930s? Was she
paid for this work?
Blau primarily conducted research at the Vienna Radium Research Institute during this time.
She was largely unpaid for most of this work.

3. Who were Blau’s peers and collaborators during this time, and what was their
ideology? Do you think this had an influence on their research or relationships?
Blau’s peers during the 1920s and 1930s were Hertha Wambacher, George Stetter, Gerhard
Kirsch, and Gustav Ortner—all of whom were secret Nazis—in addition to the other researchers
at the Institute. Surely, as a Jew, there was tension between Blau and the secret Nazi cohort.

4. What was the major discovery made in 1937 by Marietta Blau and Hertha
Wambacher?
Blau and Wambacher discovered “contamination stars,” which were the evidence of alpha
particles colliding with the nucleus of an element in the emulsion. Their discovery found that
cosmic rays propelled the alpha particles.

5. In Hamburg, what did Blau claim happened to her scientific work and records as she
attempted to flee to Norway during the German annexation of Austria?
Blau claimed that in Hamburg, her airship was halted, and that German Gestapo boarded and
confiscated her notebooks and journals. She felt that these were surely taken to Wambacher
and Stetter at the Radium Institute, as they continued her work after she fled the country.

6. What famous scientist helped Marietta Blau find accommodations and work in Mexico
City and then the United States?
Albert Einstein helped Marietta Blau enter Mexico and the United States.

7. Who won the Nobel Prize (in 1950) using the emulsion techniques developed by Blau
and Wambacher? Do you think Blau should have received recognition?
Cecil F. Powell won the Nobel Prize in Physics using the techniques developed by Blau and
Wambacher. Students may have differing opinions about whether Blau and Wambacher should
have received recognition, which could contribute to class discussion during the Explain section
of the lesson. Be sure to make students explain their position.