



DENISE ALVES FUNGARO: A GREAT INSPIRATION IN CHEMISTRY

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Abstract: Denise Alves Fungaro was born in São Paulo in 1959, coming from a family of simple origin and humble condition. Since childhood, her attention and curiosity have been aroused by chemistry and, at school, her interest in this science has increased significantly. She took a pre-university course and in 1978 started her undergraduate degree in Chemistry at the University of São Paulo (USP). She graduated in 1983 and entered her master's degree at USP, completing it in 1987. In the following year, she entered the doctorate also at USP, finishing it in 1993. She is currently the coordinator of research projects focusing mainly on the development of value-added materials from waste, optimization of the green roof and addition of waste in cementitious matrix. A highly awarded researcher, Denise is also part of the study group entitled "Planetary Health" from the Institute of Advanced Studies of the University of São Paulo (IEA-USP).

Keywords: life trajectory; black woman; chemistry; science

DENISE ALVES FUNGARO: UMA GRANDE INSPIRAÇÃO NA QUÍMICA

Resumo: Denise Alves Fungaro nasceu em São Paulo, em 1959, vinda de uma família de origem simples e de condição humilde. Desde a infância, sua atenção e curiosidade foram despertadas pela química e, na escola, seu interesse por essa ciência aumentou de forma significativa. Então, fez um cursinho pré-vestibular e em 1978 iniciou a graduação em Química na Universidade de São Paulo (USP). Formou-se em 1983 e ingressou no mestrado na USP, concluindo-o em 1987. Já no ano seguinte, ingressa no doutorado, também na USP, finalizando-o em 1993. Atualmente, é coordenadora de projetos de pesquisa com foco, principalmente, no desenvolvimento de materiais de valor agregado a partir de resíduos, otimização de telhado verde e adição de resíduo em matriz cimentícia. Pesquisadora altamente premiada, Denise integra também o grupo de estudos intitulado "Saúde Planetária", do Instituto de Estudos Avançados da Universidade de São Paulo (IEA-USP).

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Palavras-Chave: trajetória de vida; mulher negra; química; ciência.

DENISE ALVES FUNGARO: UNA GRAN INSPIRACIÓN EN QUÍMICA

Resumen: Denise Alves Fungaro nació en São Paulo en 1959, proveniente de una familia de origen simple y condición humilde. Desde la infancia, la química ha despertado su atención y curiosidad y, en la escuela, su interés en esta ciencia ha aumentado significativamente. Tomó un curso preuniversitario y en 1978 comenzó su graduación en Química en la Universidad de São Paulo (USP). Se graduó en 1983 e ingresó a su maestría en la USP, completándola en 1987. Al año siguiente, también ingresó al doctorado en la USP y lo terminó en 1993. Actualmente es la coordinadora de proyectos de investigación centrados principalmente en el desarrollo de materiales de valor agregado a partir de residuos, la optimización del techo verde y la adición de residuos en matriz cementosa. Una investigadora altamente premiada, Denise también es parte del grupo de estudio titulado "Salud Planetaria" del Instituto de Estudios Avanzados de la Universidad de São Paulo (IEA-USP).

Palabras-clave: trayectoria de vida; mujer negra; química; ciencia

DENISE ALVES FUNGARO: UNE GRANDE INSPIRATION EN CHIMIE

Résumé: Denise Alves Fungaro est née à São Paulo en 1959, venant d'une famille d'origine simple et humble. Depuis son enfance, son attention et sa curiosité ont été éveillées par la chimie et, à l'école, son intérêt pour cette science s'est considérablement accru. Elle a suivi un cours préuniversitaire et en 1978, elle a commencé son diplôme en Chimie à l'Université de São Paulo (USP). Elle a obtenu son diplôme en 1983 et est entrée à sa maîtrise à l'USP, l'achevant en 1987. L'année suivante, elle entre également au doctorat à l'USP, le terminant en 1993. Elle est actuellement coordinatrice de projets de recherche qui se concentre principalement sur le développement de matériaux à valeur ajoutée à partir de déchets, l'optimisation de la toit vert et l'ajout de déchets en matrice cimentaire. Chercheuse très récompensée, Denise fait également partie du groupe d'étude intitulé «Santé Planétaire» à l'Institut des Etudes Avancées de l'Université de São Paulo (IEA-USP).

Mots-clés: trajectoire de vie; femme noire; chimie; science

INTRODUCTION

Denise Alves Fungaro (figure 1), who was born in São Paulo in 1959, is the daughter of a janitor and came from a family of simple origin and humble condition. She attributes her entry into the scientific career to the quality public education that she had access to.

Since childhood, chemistry and the transformations of matter have always attracted her attention and curiosity. Denise liked to take her mother's lipstick and crush it. She was fascinated by pots and coloured substances and, at school, her interest in chemistry increased significantly. Her willpower, coupled with the support of her family, was essential for her scientific journey in the Chemistry universe. However, she does not disregard the privilege of having lived in the central region of the city and having had the opportunity to attend a public high school, Caetano de Campos.

She reached high school when free education was in crisis. With her parents help, she took a pre-university course and in 1978 began her undergraduate studies in Chemistry at the University of São Paulo (USP). She recalls there were hardly any black students in the previous stages of her formal education and that at the University, even less. She obtained her degree in 1983, but her career in Chemistry continued. Thus, at the same university, she entered the Master's degree, completing it in 1987. In the following year, she entered the doctorate, achieving her PhD in 1993.

Undeniably, Denise has a brilliant career in Chemistry and, since September 21, 1995, she is a researcher at the Institute for Energy and Nuclear Research (IPEN-CNEN / SP). In order to further improve her studies, she went to the University of Coimbra, in Portugal, staying there from 1997 to 1998, to pursue her post-doctorate in the area of Electrochemistry Applied to the Environment.

She is currently the coordinator of research projects focusing mainly on the development of value-added materials from waste (adsorbent materials; zeolite; bio-charcoal; nanosilice; activated carbon; etc.), green roof optimization and addition of matrix waste cementitious.

He has also supervised, so far, more than 10 scientific initiation works, 17 master's dissertations, nine doctoral theses and supervised two post-doctorates. In addition, she subscribes to 68 articles in journals, 15 book chapters and nine registered patents. He is also part of the study group entitled "Planetary Health", from the Institute of Advanced Studies of the University of São Paulo (IEA-USP).

Denise is a highly awarded researcher and among her achievements, the International Water and Science Award at the Cannes Water Symposium (France) from UNESCO (2006), the Enfil Award for Innovation in Environmental Technology (2013) and the Kurt Politzer Technology Award (2016).



Figure 1: Denise Fungaro



Source: Group of Studies in Planetary Health, USP
(Grupo de Estudos em Saúde Planetária, USP).

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