



الجمهورية الجزائرية الديمقراطية الشعبية
وزارة التعليم العالي والبحث العلمي
جامعة قسنطينة 1 – الإخوة منتوري
كلية العلوم الدقيقة

PEOPLE'S DEMOCRATIC REPUBLIC OF ALGERIA
MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC RESEARCH
Constantine 1 University – Frères Mentouri
Faculty of Exact Sciences



ANNONCE DE SOUTENANCE DE THESE

Madame **BELKHAROUCHE Drifa**

Soutiendra sa thèse de Doctorat en Sciences en Physique

Spécialité : « Physique Energétique ».

Intitulée : «Caractéristiques thermo-physiques et mécaniques d'un matériau de construction : Béton de fibres végétales»

Date : le 03 juillet 2024 à 17 H00.

Lieu : A la salle de conférences sise au Campus Chaab Erssas - Université Constantine 1 Frères Mentouri.

Devant le jury :

	Nom et prénoms	Grade	Etablissement d'appartenance
Président	DJEZZAR Mahfoud	Professeur	Université Constantine 1 Frères Mentouri
Directrice de thèse	CHAKER Abla	Professeure	Université Constantine 1 Frères Mentouri
Examineurs	BOUCHEAR Merzoug	Professeur	Université Constantine 1 Frères Mentouri
	AGOUDJIL Boudjemaa	Professeur	Université Hadj Lakhdar –Batna -
	BOUHDJAR Amor	Directeur de recherche	Centre de recherche des énergies renouvelables. Alger
	KITOUNI Saida	M.C.A	Université Salah Boubnider – Constantine 3

Abstract :

In an effort to reduce energy consumption, which has been steadily increasing in recent years in the building sector, the use of insulating materials in the envelope seems a very attractive solution. It is in this approach that this work is part of which the objective is to design a new composite material based on concrete and vegetable fibers (olive pomace) for use as thermal insulation in the building. An experimental study was conducted to determine the thermo-physical (thermal conductivity and diffusivity) and mechanical characteristics of the samples made from concrete and with different proportions of olive pomace. The effect of moisture (moisture content) on their performance has been finely examined. The results show that the addition of fibers (olive pomace) to the concrete leads to a better insulating capacity of the resulting material (lightened concrete) but affects its mechanical performance. Also a judicious choice of the proportion of the addition (olive pomace) in the concrete must be made, in order to improve the thermal characteristics (insulating power) but not to the detriment of the mechanical performances which remain the decisive parameter in the use of any material in the construction.