Proceedings of ASME Turbo Expo 2021: Turbomachinery Technical Conference and Exposition

Volume 10

June 7-11, 2021 Virtual, Online

Conference Sponsor International Gas Turbine Institute © 2021, The American Society of Mechanical Engineers, 2 Park Avenue, New York, NY 10016, USA (www.asme.org)

All rights reserved. Printed in the United States of America. Except as permitted under the United States Copyright Act of 1976, no part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written permission of the publisher.

INFORMATION CONTAINED IN THIS WORK HAS BEEN OBTAINED BY THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS FROM SOURCES BELIEVED TO BE RELIABLE. HOWEVER, NEITHER ASME NOR ITS AUTHORS OR EDITORS GUARANTEE THE ACCURACY OR COMPLETENESS OF ANY INFORMATION PUBLISHED IN THIS WORK. NEITHER ASME NOR ITS AUTHORS AND EDITORS SHALL BE RESPONSIBLE FOR ANY ERRORS, OMISSIONS, OR DAMAGES ARISING OUT OF THE USE OF THIS INFORMATION. THE WORK IS PUBLISHED WITH THE UNDERSTANDING THAT ASME AND ITS AUTHORS AND EDITORS ARE SUPPLYING INFORMATION BUT ARE NOT ATTEMPTING TO RENDER ENGINEERING OR OTHER PROFESSIONAL SERVICES. IF SUCH ENGINEERING OR PROFESSIONAL SERVICES ARE REQUIRED, THE ASSISTANCE OF AN APPROPRIATE PROFESSIONAL SHOULD BE SOUGHT.

ASME shall not be responsible for statements or opinions advanced in papers or . . . printed in its publications (B7.1.3). Statement from the Bylaws.

For authorization to photocopy material for internal or personal use under those circumstances not falling within the fair use provisions of the Copyright Act, contact the Copyright Clearance Center (CCC), 222 Rosewood Drive, Danvers, MA 01923, tel: 978-750-8400, www.copyright.com.

Requests for special permission or bulk reproduction should be addressed to the ASME Publishing Department, or submitted online at: https://www.asme.org/publications-submissions/journals/information-for-authors/journalguidelines/rights-and-permissions

ISBN: 978-0-7918-8504-8

CONTENTS

Proceedings of ASME Turbo Expo 2021: Turbomachinery Technical Conference and Exposition

Supercritical CO2	
GT2021-02604	1
Kelsi M. Katcher, Jason Wilkes, and Tim C. Allison GT2021-04122	2
GT2021-04135	3
GT2021-04155	4
GT2021-04266	5
Michael Marshall, Thomas Vandeputte, Stefan Cich, and Megan Herrara GT2021-58763	6
GT2021-58788	7
GT2021-58865	8
GT2021-58867	9
GT2021-58883	0
GT2021-58981	1
GT2021-59177	2

GT2021-59195
GT2021-59228
GT2021-59276
GT2021-59331
Dhinesh Thanganadar, Francesco Fornarelli, Sergio Camporeale, Jonathon Gillard, and Kumar Patchigolla
GT2021-59359
GT2021-59383
GT2021-59527
GT2021-59630
GT2021-59756
GT2021-59936
GT2021-59939
GT2021-59961
GT2021-59962
GT2021-60056

GT2021-60251
GT2021-60252
GT2021-60275
GT2021-60293
GT2021-60294
GT2021-60328