

I INTERNATIONAL CONFERENCE
KRASNOYARSK, RUSSIA
30 July 2020



Science and Technology City Hall
KRASNOYARSK, RUSSIA

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«International Conference on Advances in Material Science and Technology - CAMSTech-2020»

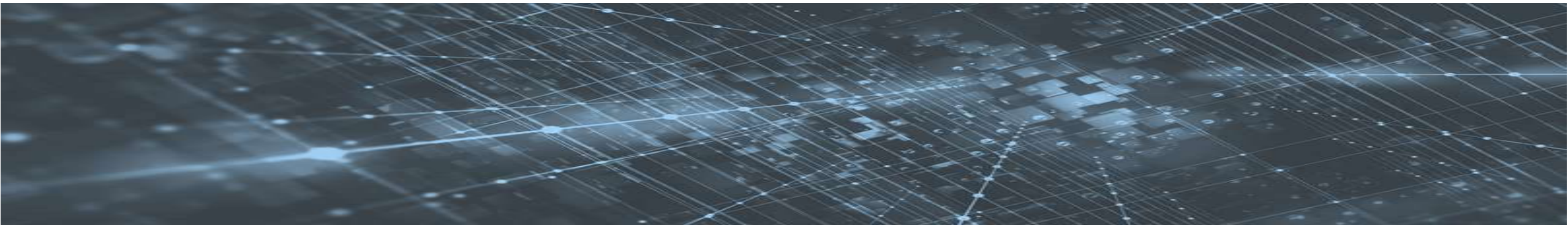
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«Features of the stages of heterogeneous catalytic processes
under the influence of microwave radiation »

R R Daminev

Problem statement

- diffusion kinetics of the process when using microwave radiation
- Task 2
- ...
- ...



Solution methods

- catalytic dehydrogenation
- The analysis of the contact gas at various catalyst stacks was performed by chromatography



Conclusions

Results, implementation

- The influence of microwave radiation on the foreign and intradiffusion stages of the heterogeneous catalytic process was experimentally investigated. It has been found that by providing a lower gas flow temperature in the microwave field process than in the conventional method, the external diffusion rate is reduced, which is compensated by an increase in the linear gas flow rate or a decrease in the size of the catalyst granules. In particular, the dehydrogenation of butenes by increasing the linear velocity of the gas stream by 38% increased the yield of the desired product by 10% by weight

Contacts

R R Daminev

Ufa State Petroleum Technological University, Kosmonavtov str., 1, Ufa, 450062,
Republic of Bashkortostan, Russia

daminev@mail.ru

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